THE LANCET.

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CLINICAL LECTURES,

DELIVERED AT UNIVERSITY COLLEGE HOSPITAL,

BY

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CHRONIC RHEUMATISM.

GENTLEMEN:—I have, to-day, to lay before you an account of two cases which have terminated fatally since we last met, both of which present themselves to our consideration in several important points of view. The first was a case of chronic rheumatism, that of Anne King, which I laid before you on a former occasion, and which has afforded us an interesting example of that mode in which rheumatism sometimes terminates fatally, viz., by metastasis to an important internal organ.

The second case to which I have to request your attention, and which I also laid before you on a former occasion, is that of James Shirley, than which it would be difficult to meet with a more striking example of what has been denominated *acute* phthisis, the disease having passed through its successive stages in a period of about four months from the first occurrence of the the cough, and in about two months and a half after the first appearance of hæmoptysis; and that, too, in a man who stated that he never had a day's illness before the commencement of the attack which compelled him to seek for relief in this hospital. And not only is this case interesting as regards the rapidity of its progress, but it is equally so from its occurring in a man of great muscular power, having a well-formed and capacious chest, and with no apparent hereditary disposition to the disease. It may, therefore, also be considered as strikingly illustrative of that form of tubercular phthisis denominated *acquired*, in contradistinction to that which is *hereditary*, or transmitted from parents to their offspring. But let us advert to the first case, that of Anne King, ætat 45, who was admitted on the 18th December.

I shall first notice the principal facts of the case, formerly stated to you in detail, and afterwards the most important of those which have since occurred.

About two years ago this patient, after getting wet, had rheumatism of the hands and knees, since which time to her admission she never had been altogether free from it. On the contrary, it had been gradually aggravated during the previous eight months. When admitted she complained of gnawing pain in the hands and knees, greatly increased by pressure; the hands were swollen; the fingers flexed, and not extensible; effusion in the knee-joints, especially in the left knee, and both legs flexed and incapable of extension. The pains were somewhat relieved by heat, and increased by cold. There was hot and dry skin; a white but moist tongue; the pulse 80, and regular. The patient was lean and much debilitated.

From this general statement of the case you will perceive that it was one of chronic rheumatism, and of the asthenic character, cold rheumatism, or arthrodynia, the joints being the parts principally affected; the pain being rather relieved than otherwise by heat; and there being little or no febrile excitement.

The treatment adopted consisted in the internal administration of the iodide of potassium, and which, in the course of about a fortnight, the patient then taking a drachm of the solution daily, was followed by considerable improvement, which continued for two weeks longer. At this time, however, the pains became worse, varying much with the state of the weather. She then took the ammoniated tincture of guaiacum, and had sinapisms frequently applied to the knees. This treatment seemed to benefit her for a short time only; the pains again became worse, her general health was less satisfactory, her appetite failed, and she complained much of weakness. The sulphate of cinchonine was then given, with considerable improvement of her general health and strength, and the pain and swelling of the knees diminished under the constant appli-

cation of poultices, which afforded her more relief than the sinapisms. An unfavourable change, however, induced us again to return to the use of the iodide of potassium, but at the end of a week it was omitted, in consequence of the supervention of febrile symptoms, viz., a quick, hard pulse, considerable heat of skin, sickness, the pains in the knees, too, having considerably increased. These febrile symptoms, however, subsided in the course of two or three days, and permitted us to resume the iodide of potassium, which was again followed by considerable improvement in the space of three days. She complained of little pain in the knees, except when pressed, and they were considerably diminished in size. Her general health, too, was also much improved, and she expressed herself as feeling altogether much better. On the following day, however, a remarkable change for the worse was observed to have taken place. This was on the 3rd of March, about two months and a half after her admission. On that day she awoke out of a profound sleep unconscious of where she was, and with no recollection of persons about her. From this state she recovered towards evening, but became delirious during the night. In the morning of the following day the countenance was livid; there was constant muttering and defective articulation; great heat and dryness of the skin; pulse 155, small and weak. The head was not hotter than the other parts of the body. She had no knowledge of persons, and was constantly picking the bed-clothes. Here, indeed, was a remarkable change in the state of the patient, and in the character of the disease, in the space of little more than a day. Marked symptoms of phrenitis had supervened during this space of time, and at a period, too, you will observe, when the local affection had undergone considerable improvement. The patient, as I have said, complained of much less pain in the knees, nor was the pain nearly so much increased by pressure as on the preceding days. The bulk of the knees had also considerably diminished, and the general health improved, up to the day preceding that on which the head affection supervened. Such a sudden and marked change, coupled with the previous amelioration of the chronic local affection, and without any obvious exciting cause, naturally suggested the idea of the occurrence of metastasis, of rheumatic phrenitis, or rheumatic inflammation of the membranes of the brain.

Means were immediately adopted to combat this new and formidable affection. The head was shaved, cold lotions applied to the scalp, and a blister to the nape of the neck. On the following day, and acting on the principle of the disease being of a metastatic nature, blisters were ordered to the knees, or the primary seat of the disease, with the view of exciting anew, or increasing the inflammation in these parts; and to co-operate with this means, and increase its effect, sinapisms were also ordered to be applied to the legs, with the administration of the terebinthinate enema. No benefit, however, followed the use of these measures. The patient died the next day, the fourth day after the commencement of the attack.

I have said that the absence of any exciting cause of the phrenitis in this case, along with the disappearance, as it were, of the rheumatic affection of the knees, were considered by us as sufficient grounds for regarding metastasis to have occurred. Nor does there appear any reason since for supposing that this opinion was ill-founded. The occurrence of metastasis is far from being uncommon (whatever meaning may be attached to this term); more so, certainly, in gout than in rheumatism; but of the latter numerous cases are recorded of its occurrence in various organs, especially in the heart, stomach, and brain, and of its terminating fatally in persons debilitated by the primary chronic affection alone, or in connection with other deteriorated conditions of the body.

I must not omit, however, to state to you, that our patient seems to have been exposed to a strong predisposing, if not exciting cause of the cerebral affection under which she sunk so rapidly. We have been informed that on one or more occasions previous to her attack, she was visited by some itinerant methodist preachers, who had been admitted at the desire of another patient in the same ward; and that afterwards, a visible alteration was observed to have taken place in her manners, feelings, and sentiments. During her delirium, or on recovering from this state, she expressed herself in language indicative of mental suffering and anxiety, and something like fearful forebodings of punishment for sins with the commission of which she had probably been accused by these too often uncharitable, and not always judicious, visitors of the sick poor of hospitals.

But, however this may be, such was the state of mind of the patient after the interview to which I have alluded, and it is easy to conceive how much the organ thus affected must have been disposed to participate in the morbid condition so long localised in other parts of the body.

The morbid appearances found after death were extremely interesting, as affording us positive evidence of the nature, not only of the chronic disease,—the rheumatism,—from which the patient had so long suffered, but also of that which was the immediate cause of death. Independently of a certain degree of general congestion of the brain, as seen by a greater quantity of blood than usual issuing from the divided

vessels in the substance of the brain, together with œdema of the same, and the effusion of serosity into the ventricles; independently of these morbid appearances, I say, there was marked inflammation of the membranes of the brain, more particularly on the *upper portions* of the hemispheres. This consisted in rose-red patches of various sizes, formed by the accumulation of blood in the minute arterial divisions, constituting the capillary congestion of acute inflammation. There was no lymph or pus effused; no opacity of the membranes; hardly any softening of these, and no perceptible alteration of the cortical substance of the brain contiguous to them. The inflammatory appearances were, in fact, confined to the membranes. It was a case of *phrenitis*, in the strictest sense of the term, and, moreover, of *acute* phrenitis, terminating fatally in the active or early stage; and it destroyed life in this patient the more readily and rapidly that she possessed little bodily energy; her constitution generally a small amount of reaction; and that the affected organ, in particular, was already in a state of exhaustion from the cause to which I have alluded, before it was submitted to the morbid stimulus of the disease under the influence of which it was deprived of its vitality. And here I may remark, whilst I trust you will not accuse me of indulging in fanciful hypothesis, that the situations of the brain in which the inflammation was most marked, were those in which phrenologists have placed those faculties of the mind which we call *veneration*, *hope*, and *conscientiousness*. Whether these faculties were highly developed or not in this patient I know not, nor could I, had I examined the cranium, have satisfied myself on this point, having neither a theoretical nor practical knowledge of phrenology. However, the fact is as I have stated it. The pathological condition of the membranes of the brain was most conspicuous in the situations which I have named, and if the leading doctrines of phrenology be well founded, it would neither be irrational nor unphilosophical to admit the influence of the moral agency which was exercised on the mind of this patient, and more especially on those individual portions or faculties of it which direct us in the discharge of our religious and moral obligations; and hence it would follow that these having been called into a state of inordinate activity, must, according to the laws of morbid as well as healthy action, have passed into an opposite state, a state of languor or exhaustion, whence might be explained the intellectual derangement and despondency which characterised the cerebral affection in this case.

But I shall not trespass further on your time on a subject of this nature, and concerning which I know so little. I have mentioned it in connection with the anatomico-pathological facts of the case, and the probable origin of the cause in which the disease seemed to have originated.

We now come to a more positive, and therefore more satisfactory part of the case, viz., the diseased appearances found in the principal seat of the rheumatic affection, the knee-joints. They corresponded, in all respects, with those alterations of the joints which, on several occasions, I have had an opportunity of observing after repeated and long-continued attacks of rheumatism. The cartilages of both knee-joints were extensively destroyed, the articular surfaces of the bones consequently denuded, and in some parts united to each other, or anchylosed. The surfaces in this state were more or less spongy, softened, of a bright-red colour, and in contact with a false cellulo-vascular membrane, of the same red colour, attached to the patella or anterior surface of the joint. The union between certain portions of the surface of the joint, and where the cartilages were destroyed, was pretty intimate, and was broken when the knee was bent after laying open the articular cavity.

All the appearances were those commonly met with in subacute chronic inflammation of long duration, and were such as afforded a satisfactory explanation of the obstinacy of the case, and the partial benefit obtained by the means employed either locally or generally. It is probable, had the patient lived, that the disease would have terminated in complete and permanent anchylosis of the joints.

I believe that none of the other joints that were affected with the disease were examined; nor were there any other morbid appearances observed bearing any relation to the history of the case.

PULMONARY CONSUMPTION.

I have already noticed, generally, the interesting character of the second case which I laid before you on a former occasion. The more important circumstances which I then related, together with the principal phenomena of the disease up to its fatal termination, I shall now recall to your recollection, and enumerate. This patient, James Shirley, æt. 36, entered the hospital the 30th of January. Although he had enjoyed good health up to a period of two months and a half before his admission, the disease had already arrived at the commencement of the second stage; that is to say, the commencement of softening of the tuberculous matter, and the formation of tubercular excavations, had already taken place.

Cough, from exposure to cold, was the first symptom of the disease, and this was followed by frequent and repeated attacks of hæmoptysis, at short intervals of time, and considerable loss of flesh and strength.

At the time of his admission the cough was severe, accompanied by copious expec-

toration of a thick, greenish-yellow-coloured tenacious mucus, sometimes tinged with blood. Sonorous and sibilant rattles were heard in various parts of the chest, indicating, along with the characters of the sputa, extensive bronchitis. There was dulness on percussion over the clavicle, on the right side, and posteriorly on the opposite part of the chest, and also a gurgling sound, and occasionally a cavernous ring, on coughing, under the clavicle on the same side,—signs which left no doubt as to the existence of phthisis, of the presence of tubercles, producing by their aggregation the dulness; softening of these, and the commencement of excavations, giving rise to the gurgling sound and cavernous ring.

Besides these physical sounds of phthisis, the usual febrile and hectic symptoms, there was also considerable roughness of the voice, indicating that the larynx was already also implicated in the disease. Under such circumstances no rational hope could be entertained of effecting any permanent benefit for the patient; and, as I remarked to you in my former lecture, the prognosis was, in the highest degree, unfavourable, not only from the physical signs of the disease which we detected at the time the patient was admitted, but from the rapid progress of the case up to this period, and more especially from the severity of the hæmoptysis, which, I said, was generally in proportion to the extent of the tubercular deposition.

Some relief of the cough was obtained by cupping and anodyne expectorants, together with the rest obtained in the hospital, quiet, and a regulated diet. During the second week he was put upon the use of the solution of tartarised antimony, in emetic doses, morning and evening; but, as no amendment appeared to follow its use, and as the patient complained of great fatigue and weakness from its operation, it was laid aside, and the previous treatment resumed. The expectoration, all along very abundant, had now become purulent, or puriform, and offensive; weakness advanced progressively with the copious night perspirations, and although the physical signs were not made the subject of farther investigation by myself, it was obvious that the pulmonary affection was becoming more and more aggravated and extensive. The last few nights before the death of the patient there was more or less delirium, and on the day also on which he died we found him, unexpectedly, much agitated, moving about in bed, and talking incoherently,—with great dyspnœa, extreme congestion of the face and lips, the hands and feet; with coldness of the extremities, and the pulse at the wrist almost imperceptible.

The rather sudden and unexpected occurrence of these symptoms we attributed to an attack, most probably, of pneumonia, or pleuro-pneumonia, as the post-mortem appearances proved to have been the case. The state of the lungs will show you to what an extent the tubercular deposition may take place in a short period of time, and, when complicated with bronchitis, prove fatal before the tissue of the lung is much destroyed, or before the tuberculous matter has undergone extensive softening.

Before pointing out to you the morbid appearances found in the lungs, I may state that there was effusion into the cavity of the pleura and pericardium, and which always happens in cases similar to the present, in consequence of the pulmonary congestion, and which necessarily contributes to the increase of that state, and to hasten death by asphyxia. In consequence, also, of this state of the pulmonary circulation, together with the mechanical obstruction offered by the immense quantity of tuberculous matter contained in the lungs, the right side of the heart was distended with coagula of fibrinous blood, whilst the left contained a much less quantity of coagulated blood only, of a very dark colour. This difference was worthy of notice, as indicating not only the mode of death by asphyxia, from obstructed pulmonary circulation, but also the almost complete cessation of the special function of the lungs some time before death, the blood appearing to have passed through these organs to the left side of the heart, without having undergone the physiological change from the venous to the arterial state,—a circumstance which must also have contributed to hasten the period of dissolution. The congestion was also observed in other organs, as the liver, spleen (which was very large and soft), kidneys, and, in some degree, in the stomach.

The presence of tubercles was not confined to the lungs,—they were found in the intestines, the organs in which, *in adults*, they are most frequently met with after the lungs; or if tubercles are not found, the consequences of them are, viz., more or less ulceration. In this case we had both, but chiefly tubercles, and these were confined to the follicular structure of the intestines, the isolated and agglomerated follicles, and will afford you a beautiful illustration not only of the primary seat of the tuberculous matter in the intestines, but of the extensive ulcerations to which they give rise in the last, or colliquative, stage of phthisis. We have also an instructive example of the morbid condition of the larynx, produced by the same cause as the ulcerations in the intestines, which occasions the roughness of the voice and aphony which takes place in phthisis. These appearances I shall now endeavour to point out to you.

Those of you who were present at the post-mortem will remember that the lungs were seen greatly enlarged, and did not collapse on laying open the cavity of the chest;

circumstances which you will find satisfactorily explained by the presence of the immense quantity of tuberculous matter which these organs contained, and the state of inflammatory congestion, hepatisation, and œdema, which they presented.

On raising the lungs cellular adhesions were seen uniting the pleuræ superiorly and posteriorly on the left side, and superiorly on the right side.

The left lung, as you perceive, presents externally a mottled aspect of red, purple, grey, and yellow, produced by the accumulation of arterial and venous blood in the parenchyma of the lungs and subpleural cellular tissue, and masses of tuberculous matter of various sizes; it feels very heavy, and almost as solid as liver. When laid open by a vertical section from the summit to the base, you perceive that it is chiefly composed of tubercles, grouped into irregular rounded masses varying from the size of hemp-seed to that of one or both fists. The tuberculous matter is readily recognised by its pale-yellow colour, opacity, and cheesy aspect and consistence,—the physical character which it usually presents in the crude state, as it is called. The softening of this matter, together with the destruction of the pulmonary tissue, have taken place in three separate portions of the lung, and the result has been the formation of what are called tubercular excavations. Two of these, of moderate size, occupy the summit of the lung, and a larger cavity is seen lower down and towards the outer side of the upper lobe, immediately beneath the pleura, the surface of which is covered by an organised false membrane of considerable density, which may, possibly, have prevented the occurrence of perforation of the pleura. The tubercular excavations present an irregular form, are but slightly anfractuous, and contain a quantity of muco-puriform matter, the secretion of the adventitious mucous membrane with which they are lined.

The small quantity of pulmonary tissue which remains unoccupied by tuberculous matter presents the appearance observed in the first and second stages of pneumonia, viz., an accumulation of blood, with some œdema; a certain degree of crepitation still remaining on pressure in some parts; and a still greater accumulation of blood, complete absence of crepitation, and diminished cohesion of the pulmonary tissue, in other parts. This lung weighs four pounds and a half. The right lung also contains a great quantity of tuberculous matter, which is much more abundant in the upper than in the other lobes, and is in the same stage as in the left lung. The upper lobe contains two excavations similar to those already described. The pulmonary tissue is generally congested and œdematous, but crepitant. The weight of the lung is three pounds thirteen ounces.

The mucous membrane of the larynx is somewhat swollen, but pale; that of the trachea presents a multitude of circular, superficial ulcerations, which, being nearly of the same colour as the mucous membrane, which was slightly reddened, might have been overlooked by an inattentive observer. They are best seen by holding the trachea in an oblique position, as a shadow is then thrown inwards from their edges, and brings them into relief. They are, also, by far, more numerous on the right than on the left side of the trachea, a circumstance worthy of your attention, as it corroborates the opinion of Louis, that they arise from the long-continued irritation produced by the passage or contact of the morbid secretions of tubercular excavations and inflamed bronchi, favoured by the *position* of the patient. In this case the patient lay almost continually on the *right side*, and, as you have seen, the ulcerations were greatly more numerous on *this side* of the trachea, where, consequently, the influence of the exciting cause must have been more extensively and more frequently in operation than on the opposite side. The hoarseness, and, occasionally, partial aphony which occurred, particularly during the latter stages of the disease, were the consequence of these morbid states of the larynx and of the trachea.

With regard to the intestines, we find in them the same morbid alterations which we have just seen to exist in the trachea, as consequences of the tubercular disease. But, as most frequently happens in cases similar to the present, I mean in acute phthisis, these alterations are neither so extensive nor so conspicuous, as in chronic cases of this affection. They are not, however, on this account, less instructive in this instance, for we have them here, in several portions of the small intestine, in the early stage. Ulceration, so very common, and frequently so very extensive, in most cases of chronic phthisis, is seen only commencing in a few points of the ileum, and where the follicles had previously been the seat of tubercular deposition. That the tubercular deposition preceded, and was the cause of the ulceration here, as it preceded and was the cause of the excavations in the lungs, may be admitted from the state of the follicular structure in other parts of the intestine. In the glands of Peyer, or the glandulæ agminatæ; and also in some of the glandula solitariæ, the tuberculous matter is distinctly seen accumulated in rounded masses varying from the size of a pin's head to that of a hemp-seed, the surrounding mucous membrane being either slightly injected with red vessels or of its natural colour. In contiguous portions the mucous membrane is partly ulcerated, and somewhat congested, or quite pale. The

ulcers are small, round, and smooth, and appear as if they were the result of the separation or discharge of the tuberculous matter from distended or partially destroyed follicles. These appearances are observed principally in the inferior portion of the ileum, as happens in the great majority of cases of phthisis. But they are also seen in the caput cœcum coli. The very limited extent of the ulceration, and the very slight traces of the existence of inflammation in the intestines, enable us to account for the absence of colliquative diarrhœa in this case.

I shall not detain you by an attempt to explain the physical signs of the pulmonary affection by the lesions found in the lungs after death, and for this reason, that we did not employ either auscultation or percussion for a considerable time before the death of the patient. There is no doubt as to the local disease having made great progress after the admission of the patient; that a great part of the tubercular deposition in the left lung took place after this period, and that the supervention of pneumonia of this lung was the immediate cause of death. The disease in the right lung was, as the physical signs clearly demonstrated, in a more advanced stage at, and some time after, the admission of the patient, than it was in the left lung; although the post-mortem examination has shown us that at the fatal termination of the disease, the latter lung was more extensively affected than the former. That this difference was not known during life is only attributable to the circumstance already noticed, viz., our not having examined the chest for a considerable time previously, from a desire not to disturb the patient, the nature and issue of whose case was but too obvious.

ABSTRACT OF

A CLINICAL LECTURE

ON DISEASES OF

THE SPINAL COLUMN,

BY FREDERICK HALE THOMSON, ESQ.,

Assistant-Surgeon of the Westminster Hospital.

DELIVERED ON MONDAY, MAY 13, 1839.

MR. THOMSON commenced his address with a recapitulation of some of the principal statements in his preceding lectures. He repeated what he had formerly mentioned regarding the importance of an accurate classification of diseases of the spine. Mr. Thomson's arrangement is explained by the subjoined table.

General Affections of the Vertebral Pile.

Affections implicating the spinal marrow, and its investing tunics.	Affections restricted to the bones and connecting structures of the vertebral column.
Curvature with altered structure.	Curvature without altered structure.
Antero-posterior curvature.	Lateral curvature.
Lateral curvature.	Antero-posterior curvature.
Incurvation.	

After stating his intention of postponing all consideration of the first grand division of this numerous class of maladies to a subsequent period, Mr. Thomson reminded the students that the 300 cases he had recorded, in which deformity or curvature without disease was 263 to 37 of deformity with disease, were taken from private practice amongst the middle and higher ranks of society. Amongst the poorer classes, with which Mr. Thomson's hospital duties gave him very extensive acquaintance, the proportions were very different; he might almost say they were the co[illegible] had stated regarding [illegible] He had accounted [illegible] mentioning the gre[illegible] evils to which th[illegible] liable, and the [illegible] forms a part [illegible] characteristic [illegible]

The most in[illegible] of distortions [illegible] was liable, co[illegible] combined with [illegible] jority of curvat[illegible] the antero-poste[illegible] out of thirty-seve[illegible] and the remainder [illegible] kind, excepting three,

The attacks of this di[illegible] dangerous malady, though th[illegible] at any period of life, were usually met with in patients under nine years of age. They are most common, indeed, in those under five years. Mr. Thomson had seen several cases, however, occurring at an age so late as between forty and sixty; but such were very uncommon.

The persons who become subject to the antero-posterior curvature, might, for practical purposes, be very conveniently arranged into two divisions: first, those tainted with a scrofulous diathesis; and, secondly, those having healthy constitutions. The treatment of a case should be modified by a reference to the class under which the patient's constitution should be placed; but the age, and the stage of the malady were of greater importance. In scrofulous children under five, or even under nine years of age, violent remedies should not be employed. Such tender patients could not bear the application of severe epispastics; besides, the irritation excited by them will interfere with the curative efforts of the child's own constitution. The nervous sys-

tem of young children was often, in these cases, so highly susceptible, that even death had been produced by the abrupt application of caustic issues. In persons of the ages of fourteen, sixteen, or eighteen years, blisters and issues might be resorted to with advantage; but, in those who were under five years of age, the tincture of iodine, applied with a camel-hair brush so as to produce rubefaction and desquamation of the cuticle, formed the best topical remedy.

Mr. Thomson now dwelt emphatically upon the importance of ascertaining the stage of the malady: whether inflammation had subsided or not; whether any and what disorganisation had occurred; and whether a tendency towards anchylosis had been observed: the conclusions supplied by such a careful investigation would of course direct the course of treatment.

Mr. Thomson then related the particulars of a case analogous to one of which he had given the history in his third lecture; a medical friend, in the City, brought it under his notice. By pursuing his mode of diagnosticating, the patient's disease was ascertained to reside in the two last dorsal and first lumbar vertebræ; these parts were so sensitive that they could not be tapped with the knuckle without great pain, and there was obviously an active state of inflammation. Mr. Thomson, according to his unvarying practice, had the patient stripped of his ordinary clothing, and dressed in a loose stole, or gown. He was made to lie continually decumbent on a hair mattrass, so constructed that the little patient could move his arms, and allow his feet to lay comfortably over the end. Care was taken that the inclination of the mattrass should not be so considerable as to allow any traction to be made on the morbid spine by the weight of the extremities. This, during the active stage of the disease, is of great importance. Attention to position was, of course, accompanied by a judicious general treatment, since no successful result can be expected in these cases without the *vis a tergo* of the patient's constitution. Under the influence of this plan the inflammation gradually subsided; and in three months the child was in such a state that a reparative process was carried on with energy.

When the above-mentioned form of disease arose from an idiopathic scrofulous diathesis, there existed, frequently, great destruction of parts, which, after the subsidence of the inflammation, required a long time for restoration; if, indeed, any could be expected. It would be highly imprudent for a medical man to attempt to prognosticate with exactness the length of time which the cure of such diseases requires, for circumstances over which he has no control may interfere and overthrow his calculation. This general uncertainty characterises the affections of the spine, perhaps, in a higher degree than any other disease, and, consequently, greater caution is required in offering an opinion respecting their future course and termination. It is very well for the charlatan, who has no character to lose, and whose only object is to secure a dupe, to indulge in extravagant assertions; but the conscientious medical man will be restrained by a regard for his reputation, by a respect for the good opinion of his profession, and by a consideration for the mental comfort of his patient, from making thoughtless or unwarrantable promises. The progress of cure in maladies of the spine, Mr. Thomson said, was often exceedingly tedious; for, although the inflammatory stage might not continue six months, yet the perfection of the anchylosis required very often two or three years.

Mr. Thomson stated that, in a former lecture, he had explained the nature of the lesion which attended or preceded the formation of the antero-posterior curvature; there was often a degeneration, or absorption, of the bone, and of the intervertebral substance. More frequently inflammation of these structures was succeeded by its usual sequels,—suppuration and caries. Not uncommonly abscesses formed and matter was collected, which ultimately encroached upon the spinal canal, and exercised pressure on the theca vertebræ. When extensive absorption and breaking down had taken place, Mr. Thomson said that in scrofulous constitutions, a deposition of an unhealthy, elastic succedaneum, instead of the parts removed, was supplied by the secreting vessels; but this substance was totally useless for the purposes of the original structure; it was similar in character and constitution to the deposition which is formed in scrofulous joints. Mr. Thomson considered that the attempt to restore the integrity of the parts in these scrofulous cases would be inane. Nevertheless, individuals were to be found who confidently asserted that they could restore such deformities, though nothing but an ignorance of the pathological condition of the spine could lead to such a conclusion. Unhappily many victims had been subjected to two or three years recumbency and stretching, and a very operose series of manipulations, to accomplish this unattainable object. After the total destruction of the constitutional powers, and entire loss of tone in the whole muscular system, the relaxed and debilitated spine being pressed into an apparent straightness, the patient is pronounced cured. In six months, however, the period required for attaining the muscular locomotive functions after such treatment, the unfortunate victim sinks into a somewhat greater deformity than she originally endured. Thus, not only are years lost, but the health of the patient permanently deteriorated. A careful examination of the proceedings of Nature in these maladies would convince the observer that the most desirable practical re-

ulcers are small, round, and smooth, and appear as if they were the result of the separation or discharge of the tuberculous matter from distended or partially destroyed follicles. These appearances are observed principally in the inferior portion of the ileum, as happens in the great majority of cases of phthisis. But they are also seen in the caput cœcum coli. The very limited extent of the ulceration, and the very slight traces of the existence of inflammation in the intestines, enable us to account for the absence of colliquative diarrhœa in this case.

I shall not detain you by an attempt to explain the physical signs of the pulmonary affection by the lesions found in the lungs after death, and for this reason, that we did not employ either auscultation or percussion for a considerable time before the death of the patient. There is no doubt as to the local disease having made great progress after the admission of the patient; that a great part of the tubercular deposition in the left lung took place after this period, and that the supervention of pneumonia of this lung was the immediate cause of death. The disease in the right lung was, as the physical signs clearly demonstrated, in a more advanced stage at, and some time after, the admission of the patient, than it was in the left lung; although the post-mortem examination has shown us that at the fatal termination of the disease, the latter lung was more extensively affected than the former. That this difference was not known during life is only attributable to the circumstance already noticed, viz., our not having examined the chest for a considerable time previously, from a desire not to disturb the patient, the nature and issue of whose case was but too obvious.

ABSTRACT OF

A CLINICAL LECTURE

ON DISEASES OF

THE SPINAL COLUMN,

BY FREDERICK HALE THOMSON, ESQ.,

Assistant-Surgeon of the Westminster Hospital.

DELIVERED ON MONDAY, MAY 13, 1839.

MR. THOMSON commenced his address with a recapitulation of some of the principal statements in his preceding lectures. He repeated what he had formerly mentioned regarding the importance of an accurate classification of diseases of the spine. Mr. Thomson's arrangement is explained by the subjoined table.

General Affections of the Vertebral Pile.

Affections implicating the spinal marrow, and its investing tunics.	Affections restricted to the bones and connecting structures of the vertebral column.
Curvature with altered structure.	Curvature without altered structure.
Antero-posterior curvature.	Lateral curvature.
Lateral curvature.	Antero-posterior curvature.
Incurvation.	

After stating his intention of postponing all consideration of the first grand division of this numerous class of maladies to a subsequent period, Mr. Thomson reminded the students that the 300 cases he had recorded, in which deformity or curvature without disease was 263 to 37 of deformity with disease, were taken from private practice amongst the middle and higher ranks of society. Amongst the poorer classes, with which Mr. Thomson's hospital duties gave him very extensive acquaintance, the proportions were very different; he might almost say they were the converse of what he had stated regarding the wealthier classes. He had accounted for this difference by mentioning the greater exposure to physical evils to which the children of the poor are liable, and the want of vigilance which forms a part of the general improvidence characteristic of that rank of life.

The most important and distressing order of distortions to which the spinal column was liable, consisted of those which were combined with organic lesion; and the majority of curvatures in these cases were in the antero-posterior direction; eleven only out of thirty-seven were lateral curvatures, and the remainder of the antero-posterior kind, excepting three, of incurvation.

The attacks of this disfiguring and even dangerous malady, though they might occur at any period of life, were usually met with in patients under nine years of age. They are most common, indeed, in those under five years. Mr. Thomson had seen several cases, however, occurring at an age so late as between forty and sixty; but such were very uncommon.

The persons who become subject to the antero-posterior curvature, might, for practical purposes, be very conveniently arranged into two divisions: first, those tainted with a scrofulous diathesis; and, secondly, those having healthy constitutions. The treatment of a case should be modified by a reference to the class under which the patient's constitution should be placed; but the age, and the stage of the malady were of greater importance. In scrofulous children under five, or even under nine years of age, violent remedies should not be employed. Such tender patients could not bear the application of severe epispastics; besides, the irritation excited by them will interfere with the curative efforts of the child's own constitution. The nervous sys-

tem of young children was often, in these cases, so highly susceptible, that even death had been produced by the abrupt application of caustic issues. In persons of the ages of fourteen, sixteen, or eighteen years, blisters and issues might be resorted to with advantage; but, in those who were under five years of age, the tincture of iodine, applied with a camel-hair brush so as to produce rubefaction and desquamation of the cuticle, formed the best topical remedy.

Mr. Thomson now dwelt emphatically upon the importance of ascertaining the stage of the malady: whether inflammation had subsided or not; whether any and what disorganisation had occurred; and whether a tendency towards anchylosis had been observed: the conclusions supplied by such a careful investigation would of course direct the course of treatment.

Mr. Thomson then related the particulars of a case analogous to one of which he had given the history in his third lecture; a medical friend, in the City, brought it under his notice. By pursuing his mode of diagnosticating, the patient's disease was ascertained to reside in the two last dorsal and first lumbar vertebræ; these parts were so sensitive that they could not be tapped with the knuckle without great pain, and there was obviously an active state of inflammation. Mr. Thomson, according to his unvarying plan, had the patient stripped of his ordinary clothing, and dressed in a loose stole, or gown. He was made to lie continually decumbent on a hair mattrass, so constructed that the little patient could move his arms, and allow his feet to lay comfortably over the end. Care was taken that the inclination of the mattrass should not be so considerable as to allow any traction to be made on the morbid spine by the weight of the extremities. This, during the active stage of the disease, is of great importance. Attention to position was, of course, accompanied by a judicious general treatment, since no successful result can be expected in these cases without the *vis a tergo* of the patient's constitution. Under the influence of this plan the inflammation gradually subsided; and in three months the child was in such a state that a reparative process was carried on with energy.

When the above-mentioned form of disease arose from an idiopathic scrofulous diathesis, there existed, frequently, great destruction of parts, which, after the subsidence of the inflammation, required a long time for restoration; if, indeed, any could be expected. It would be highly imprudent for a medical man to attempt to prognosticate with exactness the length of time which the cure of such diseases requires, for circumstances over which he has no control may interfere and overthrow his calculation. This general uncertainty characterises the affections of the spine, perhaps, in a higher degree than any other disease, and, consequently, greater caution is required in offering an opinion respecting their future course and termination. It is very well for the charlatan, who has no character to lose, and whose only object is to secure a dupe, to indulge in extravagant assertions; but the conscientious medical man will be restrained by a regard for his reputation, by a respect for the good opinion of his profession, and by a consideration for the mental comfort of his patient, from making thoughtless or unwarrantable promises. The progress of cure in maladies of the spine, Mr. Thomson said, was often exceedingly tedious; for, although the inflammatory stage might not continue six months, yet the perfection of the anchylosis required very often two or three years.

Mr. Thomson stated that, in a former lecture, he had explained the nature of the lesion which attended or preceded the formation of the antero-posterior curvature; there was often a degeneration, or absorption, of the bone, and of the intervertebral substance. More frequently inflammation of these structures was succeeded by its usual sequels,—suppuration and caries. Not uncommonly abscesses formed and matter was collected, which ultimately encroached upon the spinal canal, and exercised pressure on the theca vertebræ. When extensive absorption and breaking down had taken place, Mr. Thomson said that in scrofulous constitutions, a deposition of an unhealthy, elastic succedaneum, instead of the parts removed, was supplied by the secreting vessels; but this substance was totally useless for the purposes of the original structure; it was similar in character and constitution to the deposition which is formed in scrofulous joints. Mr. Thomson considered that the attempt to restore the integrity of the parts in these scrofulous cases would be inane. Nevertheless, individuals were to be found who confidently asserted that they could restore such deformities, though nothing but an ignorance of the pathological condition of the spine could lead to such a conclusion. Unhappily many victims had been subjected to two or three years recumbency and stretching, and a very operose series of manipulations, to accomplish this unattainable object. After the total destruction of the constitutional powers, and entire loss of tone in the whole muscular system, the relaxed and debilitated spine being pressed into an apparent straightness, the patient is pronounced cured. In six months, however, the period required for attaining the muscular locomotive functions after such treatment, the unfortunate victim sinks into a somewhat greater deformity than she originally endured. Thus, not only are years lost, but the health of the patient permanently deteriorated. A careful examination of the proceedings of Nature in these maladies would convince the observer that the most desirable practical re-

sult was an anchylosis (even if attended with great deformity) formed by the approximated extremities of the implicated bones. An inspection of the several preparations which are to be met with in the museums of London would furnish satisfactory evidence as to the manner in which the anchylosis is produced. In cases of deformity occurring in those who are not of a scrofulous diathesis, where healthy inflammation only has existed, and where two or three of the vertebræ have been partially absorbed, when the active stage of the disease has been subdued, a plan may safely be followed to reduce or obliterate the projection that such disease has occasioned. This may be done by placing the patient on the back, on a hair mattrass, slightly inclined, the weight of the head and upper extremities to be supported by rests in the axillæ, and, by allowing the weight of the trunk to act on the projecting part, it may be gradually reduced, and anchylosis with the least possible deformity is secured. Mr. Thomson exerted himself to impress these and other points on the minds of the students; and he repeated, again and again, the injunction that decumbency did not necessarily imply a supine or a prone position exclusively, but that either the one or the other, or the lateral position, should be employed, as the stage of the disease or the other circumstances of the case might require.

When inflammation is excited in the spinal column by external violence, such as blows or falls, the progress of the disease is generally much more subject to the control of remedies; quiescence is to be obtained, and counter-irritants are to be resorted to according to the severity or mildness of the symptoms. As the inflammation subsides the sympathetic irritation will gradually succumb, and the patient will be restored to a healthy state. In these cases the medical man, as he has a good constitution for an ally, generally succeeds in preventing the occurrence of any very marked deformity.

Mr. Thomson stated that a formidable variety of spine disease was occasionally met with in strumous persons of an adult age, and that in such patients destruction of parts was very rapid and extensive. In the course of a few months the bodies of three or four vertebræ are absorbed, an extensive curve takes place, and a perilous constitutional irritation, if not a hectic fever, is excited: in the management of these cases great delicacy of judgment and firmness of purpose must be exerted. The often-reiterated principles of perfect quietude, recumbency, and general medication, are to be strictly attended to.

The medical man, in whose care the patients of the middle and upper classes are placed, has, according to Mr. Thomson's opinion, a better chance of obtaining satisfactory results than when his attention is devoted to alleviate the sufferings of the poorer classes. Amongst the former the insidious attacks of disease are sooner detected than amongst the latter; and a perfect acquiescence in, and obedience to, the injunctions of the medical man may be insured. The means of putting in practice the suggestions of the surgeon, too, are generally wanting in the dwellings of the poor; and the governors of hospitals are too loth to allow the time required for the treatment of this affection to be spent by the patient within the walls of those asylums; from these causes it follows, that the result of practice in spine-diseases is less satisfactory amongst the poor than amongst the opulent. When considerable progress has been made in removing deformity in certain cases admitted into public charities, the sending of the patients home again before the parts are sufficiently consolidated, invariably induces a relapse, which is often more dangerous than the original disease. In such circumstances, anchylosis with great angularity in the spine, is the unfortunate and remediless result.

It is a singular and a beautiful provision of Nature, said Mr. Thomson, that, in the greatest deformities of the spinal column, pressure on the spinal chord rarely takes place; this is proved by the muscular vigour which those afflicted with these anchyloses so often exhibit. The integrity of the vertebral canal, secured by Nature in these affections, may be seen at the College of Surgeons, and in the museum of every hospital.

In scrofulous children, paralysis from abscess is not unfrequently observed; the pus accumulating has pressed upon the theca vertebralis, and paraplegia has been the consequence.

Mr. Thomson stated that lateral curvature which is more common amongst the wealthier classes, is very rarely attended with organic lesion; but that cases of this combination are now and then to be met with. A gentleman, about fifty years of age, had recently applied for advice to Mr. Thomson; he had lateral curvature, and had been under the care of one or two medical men in the metropolis; his general health had been considered the source of the unpleasant symptoms from which he was suffering, and one gentleman had treated him for disease of the rectum; he had diminished power in the lower extremities; and, upon accurate examination, it was found that three of the lower dorsal vertebræ were diseased. Mr. Thomson prescribed position, attention to the general health, and the application of the actual cautery in the immediate vicinity of the affected vertebræ, and in about four or five months he expects that the active disease will be totally subdued.

Mr. Thomson, recurring to the importance of caution to the medical man in the forma-

tion of his prognosis, remarked, that the surgeon should not excite the hopes of the patient too highly; young men ought to be placed on their guard against this error; neither should an unqualified condemnatory opinion be rashly given. Where the antero-posterior curvature was slight, the pain not urgent, no loss of substance in one or both of the lower limbs, no general emaciation, and no great pain excited by moving, about six or eight months might be considered as sufficient time for the operation of the cure. In severer cases, a year and a half, two years, or even three years, may be necessary for the complete re-establishment of the parts to a serviceable condition.

Mr. Thomson gave it as his fixed opinion, that cases of organic vertebral disease were generally much more tractable in adults than in children. With the former the inflammation yields more rapidly, and the reparative process is more energetically carried on.

The lecturer finally related a case, adapted to show the importance of circumspection and deliberation in pronouncing a prognosis in these cases. About eight years ago, a most respectable and sensible tradesman, residing at the west end of town, had a daughter, about six years of age, afflicted with the antero-posterior curvature, combined with very extensive disease in the bodies of the vertebræ; there was a great deal of constitutional irritation, which it was evident would destroy the patient unless it was promptly repressed. An eminent surgeon was called in and consulted; he stated that nothing could save the life of the child, and that palliative medicines should alone be given. Dissatisfied with this opinion, the parents sent for another equally eminent surgeon, and his opinion was even more unfavourable than that of the former. The parents now resigned all hope; but, a few days afterwards, hearing of a general practitioner who had gained some name in the treatment of this class of diseases, they sent for him. He examined the case, and expressed an opinion that a decumbent position would, by securing perfect quiescence in the affected structures, and by removing all the weight of the upper parts from the spinal column, reduce, first of all, the constitutional irritation which the angry condition of the diseased vertebræ kept up, and, in course of time, might tend to restore the use of the vertebral pile itself. The child was accordingly placed on a mattrass. In a short time an improvement in her condition was visible, and in two years she was so much better that she was sent into the country, where (precautions being not lost sight of), she continued to improve. She returned to London with augmented vigour of constitution, and was ultimately restored to the possession of locomotive strength and agility. The patient at the present time is quite well, and her figure is very nearly in its natural shape.

PATHOLOGY AND TREATMENT OF CLUB-FOOT.

To the Editor of THE LANCET.

SIR:—Reports of the success, in Germany and France, of Stromeyer's treatment of club-foot, and other deformities arising from irregular action of muscles, by the division of their tendons, have led to the section of the tendo Achillis, by British surgeons, in a multitude of cases of club-foot, within the last two years. As the division of this tendon alone is calculated to relieve but one variety of the deformity, it is not surprising that the operation, indiscriminately practised, should have totally failed in some instances, and have been followed by but partial success in others. To Dr. Little belongs the chief merit of having established the practice among us on the principles pursued by Dr. Stromeyer, and his communications to THE LANCET are almost the only documents, in an English dress, which can be referred to for information on the subject. Those papers show that the circumstances attending many cases of distortion are far more various and complicated than is generally believed. As failure resulting from inattention to these complications may lead to a reaction in favour of the mechanical treatment, should the following cases possess sufficient interest to induce you to give them a place in the pages of THE LANCET, it will not, I trust, be considered a needless repetition of matter already, perhaps, before the public, if I introduce them to your readers by a few brief remarks on the origin and nature of these deformities, their varieties, and the modifications of treatment adapted to each variety,—derived not so much from my own opportunities for observation, as from personal communication with Dr. Stromeyer, during a visit to Hanover, in 1837, with Dr. Dieffenbach, of Berlin, and with Dr. Little, whose liberality and courtesy must be acknowledged by all who have sought information of him. I am, Sir, yours obediently,

HENRY T. CHAPMAN.

2, Argyll-place, April 23.

ORIGIN.

Although that explanation may not be unanimously admitted, the best authorities are now agreed that, with very few exceptions, to be hereafter noticed, club-foot (talipes) originates in a morbid derangement of function in the nerves supplying the flexor and extensor muscles of the foot, the consequence of which is that the natural balance between the two antagonising systems is suspended, or destroyed, and displacement of the bones of the tarsus necessarily follows.

This derangement is of two kinds. One

system of muscles (the extensors) may be altogether deprived of nervous influence,—may be paralysed, in short, and be incapable of counterbalancing their antagonists in a state of *ordinary* action (case 1); or, retaining their ordinary power, the same set of muscles may be overcome by their antagonists preternaturally excited,—in a state of *extraordinary* action (case 2). In either contingency the same amount of deformity may be the result; but it is highly important to ascertain which of the two conditions is present, as a knowledge of this will materially influence the surgeon's prognosis as to the issue of the operation. Loss of power from over-extension, or disuse, being more or less speedily recovered; restoration of paralysed muscles cannot be expected to follow the operation.

Either of the states above described may occur indirectly, as a consequence of malformation, or disease of the nervous centres, or may arise from direct injury to an individual nerve, or set of muscles, supplied by it. The distortion may, therefore, be congenital, or may be acquired at any subsequent period of life.

Deformity from malformation of the bones themselves is rare. It is sometimes produced by rickets; and club-foot, from this cause, is, of course, irremediable by the division of tendons. A long continuance of a state of malposition will, nevertheless, occasion deformity of the bones, the greater or less degree of which must further be taken into consideration in the prognosis.

Elongation of one set of ligaments, and contraction of the opposite, is another consequence of the long existence of the deformity, which it is occasionally very difficult to overcome. A passive variety of club-foot is sometimes produced by their elongation, or relaxation, independently of muscular action.

Where the mechanical treatment has been long and actively persevered in, another obstacle to the return of the foot to its natural position often exists. Not only has the tendon become larger and firmer than ordinary, but its sheath, and the surrounding cellular tissue, in a condensed state, embrace it so closely, that no immediate retraction follows its division, and its future extension is much impeded.

VARIETIES.

Of distortion arising from the most common cause,—deranged action of muscles,—three distinct varieties are met with, dependent on the system or number of muscles affected.

First,—Talipes equinus, or pointed toe; simply, retraction of the heel.

Second,—T. varus, or distortion of the foot inwards.

Third,—T. valgus, or eversion of the foot.

Both varus and valgus may be, and generally are, complicated with retraction of the heel; in fact, talipes equinus is often the first stage of each of the two last varieties.

TREATMENT.

The following may be regarded as the principles on which a successful issue of the operation depends:—

First,—Division of the tendons of those muscles which have occasioned the deformity, with as little disturbance as possible to the skin and surrounding parts.

Second,—Instead of attempting to bring the foot to its natural position immediately,* to maintain it in the position most favourable to the union of the divided tendon, and least likely to produce superfluous inflammation.

Third,—If the case proceeds favourably, to commence the extension of the tendon on the third or fourth day, increasing it gradually till the foot has reached its natural position, and the ankle-joint has recovered its flexibility. The extending instruments, or a boot calculated to support the foot, and resist any tendency in the muscles to reproduce the malposition, must be worn for some time after the cure is completed.

In the first variety the muscles which terminate in the tendo Achillis being the agents of the distortion, division of that tendon alone is sufficient to set the heel at liberty, and bring the sole of the foot to its proper position.

In the second, the distortion being produced by the action of the flexors and adductors of the foot (viz., the tibialis posticus, flexor longus pollicis, and, sometimes, the plantar muscles) divisions of the tendons of one or all of these muscles becomes necessary. In varus of long standing the plantar fascia is frequently so shortened as to render a partial or total division of its fibres imperative. In the third variety the extensors and adductors of the foot (the peronei, extensor digitorum and tibialis anticus) being in fault, the tendons of one or more of these muscles must be divided.

When retraction of the heel coexists with varus or valgus, it is better to operate at twice; that is, first reduce the case to the state of talipes equinus, by dividing the tendons of those muscles which are the immediate cause of the inversion or eversion; and, having accomplished this, then perform section of the Achillis tendon, as in a case of simple talipes equinus.

The points on which a correct diagnosis of cases suited to the operation depends,

* This is the practice of Bouvier, in France, and of Mr. Whipple in this country. Although successful in their hands, it was followed by disastrous consequences when attempted by Delpech. The objections to this proceeding have been stated by Dr. Little.

may be gathered from what has been said under the preceding heads.

A prognosis unfavourable or favourable to the operation must be founded on the greater or less degree of the malformation of the bones; on the existence or non-existence of paralysis; and on the amount of contraction of the ligaments,—the excess of which last complication, if not discovered until after the section of the tendons, may entirely frustrate that operation. I am acquainted with one instance in which division of the plantar ligament was absolutely requisite, and was practised with the best effect.

From a number of cases treated, I select the following, as those which afford the best illustration of the principles laid down above.

TALIPES EQUINUS.

— Ermalls, ætat. 8, a healthy boy, whose right heel has been gradually drawn up since he recovered from a fever four years ago. The instep and dorsum pedis are now, February 20th, 1838, in a right line with the front of the leg. No inversion or eversion of the foot. He walks upon the bent toes of that foot. The muscles of the calf become extremely rigid as soon as extension of the heel is attempted; and a portion of the mass corresponding with the situation of the soleus, is contracted into a hard fibrous knot. By bending the knee considerably, and employing force, the foot can be approximated somewhat towards its natural position. On directing the patient to attempt to draw up the foot and extend the toes, no action of the tibialis anticus can be detected, and the contraction of the long extensor of the toes is so slight as to be scarcely perceptible. This observation led me to give a cautious prognosis as to the degree of power which the muscles might possess when the foot was restored to its proper position, as the origin of the deformity seemed to be traceable to paralysis of the tibialis anticus muscle.

March 8. The Achillis tendon was divided by a simple puncture through the skin, and a splint applied along the front of the tibia and dorsum of the foot, to maintain the malposition for the present, and prevent too much retraction of the divided extremities of the tendon.

11. Removing the splint, I gave the foot gentle passive motion, and ascertained, by its action on the calf, that tolerably firm adhesion between the divided ends of the tendon already existed.

On the 12th a simple extending instrument was applied, and in three weeks from this time the foot was brought to a less angle than a right angle with the leg, and the patient was able to walk half a mile with great ease. Owing to the powerless condition of the extensor muscles he was was obliged to throw his foot forward in walking, in order to apply the sole to the ground; and no improvement in this particular had taken place when I saw him some months afterwards.

VARUS COMPLICATED WITH RETRACTION OF THE HEEL.

The history of the case is as follows:— H. C., Esq., ætat. 29, a graduate of Cambridge, and student at the bar, was attacked in the winter of 1822-3 (an. ætat. 13) with symptoms indicative of inflammation or irritation of the lower part of the spinal chord, which terminated, in the course of a few weeks, in paralysis of the bladder and *right* lower extremity. After a confinement of six months the limb partially recovered its muscular power, but has continued weak and shrunk in size to the present time.

About a year and a half after the commencement of the disease, at which time he had recovered much of his former activity, he noticed that the toes of the *left* foot were becoming slightly inverted, and that the heel appeared to be a little drawn up. This inversion of the toes and retraction of the heel increased gradually till the year 1827, when the deformity was so great that counteracting measures could no longer be dispensed with. Callum's instrument was first employed, and the patient was afterwards placed under the care of Mr. Chessher of Hinkley. Scarcely any advance towards rectifying the deformity was made under the use of Mr. Chessher's machine, nor did it much facilitate his power of progression. In fact, the distortion has been slowly increasing in both directions up to the date of his application to me, and the irons have lately been far more injurious than beneficial in their action.

The case being less promising than any that had yet come under my notice, before I decided on operating, I requested my friend, Dr. Little, to examine the foot with me. He expressed himself in terms by no means sanguine as to the result of the operation, and counselled a very guarded prognosis, telling the patient that he must be satisfied with any degree of improvement that might follow.

Adopting Dr. Little's practice in varus attended by retraction of the heel, namely, attempting first to straighten the foot and leaving the heel to be brought down afterwards, I proceeded to operate, with the former intention, on the 23rd of August. The muscles whose contraction occasioned the inversion of the toes, were the flexor longus pollicis, the adductor pollicis, and the tibialis anticus,* the plantar fascia being also

* The tibialis anticus, which is a primary agent in producing valgus, has a secondary action, also, in some cases of varus. It is first extended considerably as the gastrocnemii draw up the heel, and again contracts

shorter than natural, and very tensely stretched at every attempt to straighten the foot. The tendons of the flexor longus and adductor pollicis were reached without difficulty by a short incision along the inner margin of the sole, a little anterior to the malleolus internus, and both were divided with the point of a straight bistoury. I then passed the bistoury between the skin of the sole and the plantar fascia, and turning its edge towards the latter, divided it as I withdrew the blade. Section of the tendon of the tibialis anticus was readily accomplished by gliding the point of a curved bistoury beneath it. Having satisfied myself by a very cautious extension that no other obstruction to the return of the foot to its natural position remained, I applied a splint along its dorsal surface, and directed the limb to be kept in a state of perfect quiet.

Aug. 25. Removing the splint I everted the foot slightly, and gently moved the ankle and tarsal joints for a short time, and, on the 26th, commenced more powerful extension by means of a straight splint, employed by Dr. Little, to the inside of which, at its lower end, a strong spring is attached. The upper part of the splint is confined to the outside of the leg by a bandage, and the foot being secured by a loop to a stud at the end of the spring, as great a degree of eversion as it can bear is kept up by the action of the spring, the loop being shortened daily as the toes yield. The pressure on the outside of the foot occasioned some troublesome vesication and superficial sloughing, which retarded our progress somewhat; but early in October I was able to take a cast representing the state of the foot six weeks after the first operation,—in short, reduced to a talipes equinus.

My patient then left town for a few weeks, and having returned early in November, the Achillis tendon was divided on the 6th. Perfect extension of the foot was maintained by a splint along its dorsal surface, and, on the 10th, adhesion of the divided ends of the tendon having already taken place, the extending instrument was applied. On the 21st the foot was brought up to a less angle than a right angle with the leg, the sole being well applied to the ground, and he began to bear the weight of the body upon it. He continued to exercise the limb daily, and on Dec. 16, walked about a quarter of a mile with me. Notwithstanding the limp in his gait arising from the state of the right leg, he is now able to walk a distance of two miles without fatigue.

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when the inversion of the foot has reached a certain point, aiding the adductors in increasing the distortion, and sometimes preventing the return of the foot to its natural position when the tendons of these latter are divided.

ON THE

PHYSIOLOGY OF THE ACTION OF THE HEART,

AND THE

"MECHANISM OF RESPIRATION."

To the Editor of THE LANCET.

SIR:—Objections having been made in THE LANCET of January 20th, by Mr. Snow, of London, to my paper on this subject, which appeared in THE LANCET of December 29, 1838, I have deferred answering the same until more leisure presented, and further experiments and illustrations could be offered.

My object being the ultimate development of truth, I should feel much obliged by your giving publicity to the following reply.

I am, Sir, your obedient servant,

JOHN GOODMAN.

112, Greengate, Salford, April 26, 1839.

To my first proposition,—"on the size of the heart,"—which appears to me of the greatest importance, as by it was understood that the organ, as it is generally met with, and as (I believe) it is invariably found when an animal is opened, viz., with fully dilated ventricles, and fully compressed auricles, exactly filling the space between the unyielding spine, &c., posteriorly, the sternum anteriorly, the diaphragm inferiorly, and the pulmonary organs laterally, Mr. Snow does not oppose any argument.

Mr. Snow commences with objections to my statement that the outer walls, or bony arch, &c., firmly and perfectly sustain the pressure of the atmosphere. I agree with him that the most delicate structures do bear the pressure of the atmosphere without detriment, &c., but this is not what I meant with respect to the thorax.

The meaning I intended to convey was, that such is the strength and form of this mechanism, that any organ within it, if capable of producing a variation in the density of the air or fluids which it contains, can do so without any giving way on the part of the thorax; or that the thoracic walls do so sustain the pressure of the atmosphere that they remain unmoved during the formation of a perfect vacuum in the pericardium, or a partial vacuum in the pulmonary structure. To this property of the outer walls (if proved) I think we may still reasonably apply the term protective or resistive influence.

Proofs of Passive Resistance.

I this day placed two weights, of 56lbs. each, upon the chest of a youth under 19 years of age, whilst in the recumbent posi-

tion. He bore them with ease, breathed comfortably, and the recession of the chest was inconsiderable.

I placed a weight of 56lbs. on the centre of the diaphragm of a cow, just killed, and hanging by the heels. The recession was about 4½ inches, but it was evident that if the anterior attachment had been preserved entire, the recession would have been much less. The diaphragm also fell two inches with 20lbs. The length of the heart in this case was nine inches, and possessing a ventricular surface of about 112 inches.

The immense weights on record, which individuals have borne upon the thorax, without sustaining injury, the functions of the heart and respiration proceeding, illustrate, also, the capability of resistance of the thorax.

Active Resistance.

The amount of active resistance which the thorax and diaphragm are capable of offering to the atmospheric pressure throughout their surface, considerably exceeds the statement of Mr. Snow. He states, towards the conclusion of his observations, that "if a tube be inserted into one nostril, the other end being dipped in mercury, the other nostril and the mouth closed, and a powerful act of inspiration made, the mercury will be raised nearly two inches," &c. "It is thus evident (says he) that in violent respiration about 1-15th of the whole pressure, or one pound to the square inch, can be alternately added to or removed from the equable pressure."

I performed this experiment precisely as above, and by a powerful act of inspiration succeeded frequently before witnesses in raising the mercury 3¾ inches, which, being just double the amount named by Mr. Snow, indicates the existence of one-eighth of a perfect vacuum throughout the whole interior of the pulmonary structure, and exhibits at the same time that the thorax, as given by Mr. Snow, of 300 square inches, is capable of sustaining and actively expanding under a pressure of nearly 2lbs. on every square inch, or of 562½ lbs. upon the surface of the thorax. My chest presents a surface of 366 square inches, and the diaphragm of about 54 square inches, the weight sustained, therefore, in this experiment, would be nearly 732lbs. upon the chest alone, nearly 108lbs. upon the diaphragm, and producing together the total weight sustained of 840 lbs. During this experiment I felt considerable uneasiness in each ear, at the nape of the neck, and became deaf for a few minutes.

From the result of this experiment it may readily be conceived at what a degree of rarefaction the air in the pulmonary cells arrives, in severe cases of croup, by the almost impermeable condition of the natural aperture, and, in consequence, to what an extent the pressure of the atmosphere and action of the right ventricle will produce engorgement and infiltration of the pulmonary tissue, from the very onset of the disease.

It is rather singular that there should appear in M. Magendie's "Compendium of Physiology," of 1826, page 376, the following as an active cause of the *dilatation* of the *thorax*:—"I allude (says he) to atmospheric pressure, which is exercised over the whole interior surface of the cavity through the medium of the lungs. This pressure has such an influence that if by any means it ceases to take place, the chest is no longer dilated, &c." And to show that by this is meant not merely a passive means by which the muscles of the thorax produce the dilatation, he says,—"Another proof which may be added is seen in the facility with which the chest of a subject can be dilated by *inflation*, and in the difficulty experienced in attempting to dilate it by simply elevating the ribs and sternum."

Surely the rising of water in the common pump is not generally understood as the cause by which the piston is worked.

As yet I certainly cannot bow to Baly's "Translation of Müller's Physiology," with regard to the primitive fibrils of the muscles, for several reasons, but will postpone the speculation for the present.

The experiment which I performed of removing the heart through an opening in the diaphragm, and then inflating the lungs, I still consider very fair evidence that the lungs do not readily interfere with the action of the heart by pressing inwards the pericardium, inasmuch as in that experiment the inflated organs had equal facility for distending in the lateral direction as longitudinally; nor is it likely that in the perfection of mechanism exemplified in the human being, one organ should interfere with the working of another; but if we take into consideration the advantages which the auricles possess for rapid dilatation in comparison with the pulmonary organs, the two powers, atmospheric pressure and vis a tergo, which produce the distention with blood in the former, whilst the lung is merely dependant upon one power, atmospheric pressure, for its dilatation, the *large orifices* permitting the rapid transition of fluids into a *small vessel*, the former, and the *small orifices* into two considerably *larger cavities*, the latter, it will at once be manifest that independent of any pericardial resistance, trifling could be the encroachment of the lungs during the contraction of the ventricles.

Hitherto I have adopted the statements of physiologists, and represented the heart as beating between the fifth and sixth ribs, but I do now unequivocally contend that the situation to which the apex is projected is into the *angle* formed by the union of the diaphragm with the inferior portion of the

sternum and cartilages to the left of this situation. By the mechanical construction of this angle the capability of resistance of the thorax, and particularly of the diaphragm, is evidently much increased. By the projection of the wedge-like apex into an acute space (the union of two inclined planes) concussion is considerably diminished. It is also diminished by the inferior portion of the angle being fleshy and elastic, instead of osseous or cartilaginous, as it would be were the point of concussion the sternum and cartilages alone, as is generally supposed.

Inconsiderable Variation in the Supero-inferior Pericardial Diameter.

By an experiment, which I performed upon a calf about five days old (a cruel but strictly necessary one, as artificial respiration would have destroyed the results), after opening the abdomen, I witnessed the movements of the thorax and diaphragm during respiration. I found that the tendinous fibres of the diaphragm were continually tense both during inspiration and expiration, and at the termination of each. That, although the long diameter of the pericardium appeared to lengthen and shorten much during these movements, from the concavity presented by the diaphragm at the close of expiration, and its flat appearance after inspiration, this appearance was very delusive; and that the space occupied by the heart, from the upper part of the chest to the central tendon of the diaphragm (like the antero-posterior diameter) varied inconsiderably. I also distinctly remarked that there was no appearance of depression at all for any contraction of the ventricles.

Mr. Snow proceeds, — "Further on we find it stated that either the anterior walls of the pericardium must give way, and follow the contraction of the ventricles, or a vacuum must take place between the apex of the heart and the sternum it has now relinquished. Mr. Goodman (says he) must have derived this opinion from the speculative conclusion alluded to above, for all previous authors say that the apex of the heart is projected forward against the sternum during the contraction of the ventricles; and that this projection commences with the very beginning of the contraction, is evident from the impulse being exactly synchronous with the first sound of the heart, which is caused by the contraction of the ventricles."

If I have not already placed this argument beyond the pale of "speculative conclusion," I feel confident I shall be able to do so.

I doubt not Mr. Snow will agree with me that the walls of the heart, the spine posteriorly, the sternum anteriorly, and the diaphragm inferiorly, do not become depressed, or fall in during the contraction of the ventricles; that they are firm and unyielding except in the performance of the function of respiration. I have proved that the whole surface of these walls can bear a pressure of two pounds on every square inch, and can sustain the weight of 840 lbs., or as much as the muscles of inspiration can give them to do. Indeed, if the whole ventricular surface of a human heart were surrounded by vacuum, the blood arrested from flowing into the auricles by ligature, and the air from entering the lungs by the same method, we should have but about 36 square inches of surface of pericardium surrounding the vacuity, and as this vacuity would be central with regard to the thorax, we could but have the pressure of 15 lbs. on every square inch of pericardium (36) equal to 540 lbs., distributed over, and pressing upon, the whole surface of the chest, which I have proved will bear 840 lbs.

Now, as to the method in which the heart produces the projection forwards of the apex, Mr. Snow does not at all enlighten us, but refers to "previous authors." The opinions of authors are extremely various on this subject, as stated in THE LANCET of December 29, 1838.

1. Some state that the heart lengthens during contraction, and produces thus the projection of the apex.

2. Bassnell showed that the ventricles shorten during contraction.

3. Bertin adopts the opinion of auricular distention, as the cause of the impulse of the heart.

4. Dr. Bostock "considers the ingenious suggestion of W. Hunter, that the injection with blood of the arch of the aorta, thus tending to straighten its curvature, as probably sufficient to account for the phenomena.

5. And elsewhere as depending upon the effort which the ventricles make to expel their contents.

6. Senac showed that the impulse depended on auricular distention, injection of the aorta, and dilatation of the pulmonary artery and aorta.

7. Dr. Hope appears undecided between the lengthening of the ventricles during contraction, and the distention of the auricles.

Mr. Snow has not adopted any one of these opinions, I am, therefore, under the necessity of attacking the whole.

With regard to the proposition No. 1, that the vessels elongate during contraction, in addition to the decision of Bassnell, it is evident that in this case to eject a given portion of blood they must become considerably narrowed in their transverse diameter, occupying less room laterally, and producing vacuity between their sides and the lungs; the consequence would be a distention of the lung laterally, by the pressure of the atmosphere, for each contraction of the ventricles, which must, of necessity, produce a continued variation in the density of their contents, corresponding to the action

of this organ, which is not the case. Again, if the full ventricles and empty auricles already fill the whole pericardium, as aforementioned, and maintain even the same length during ventricular contraction, there would be no room for auricular distention, which is acknowledged at all hands to occur at this moment; but increasing in length during contraction (terms perfectly contradictory), where, indeed, will the distending auricle find room?

2. If the ventricles shorten during contraction whence arises the impulse?

4. The idea of W. Hunter, Dr. Bostock, and partly of Senac, that the injection of the arch of the aorta, &c. is the cause of the impulse, is instantly overthrown by viewing the origin, situation, and course of this vessel. Arising anteriorly *on the right*, it projects obliquely backwards *to the left*, and descends on the left of the spine. Its projectile influence, by the straightening of its curvature, would, therefore, be exerted in the direction from left posteriorly to right anteriorly; and, consequently, the *side* of the right ventricle would be made to beat against the right side of the pericardium, exactly at right angles with its acknowledged action.

5. The effort which the ventricles make to expel their contents, being an effort of withdrawal, can by no means produce the effect of projection.

6. The second suggestion of Senac on the dilatation of the aorta and pulmonary artery, by blood *from* the ventricles, can have no greater influence upon the projection forwards of the apex, than the distention of an equally large tube, the œsophagus, by food, in the act of swallowing.

Lastly. The cause assigned by Bertin and others, and partly by Senac, is doubtless sufficient for the production of impulse, and must eventually be recognised by all who have an opportunity of witnessing the action of this organ; but to arrive at a perfect knowledge of the true causes of this phenomenon, we must take into consideration not only the mechanism by which the apex is moved, but also all other circumstances connected with its action.

Mr. Snow's observation, "that all previous authors say that the apex of the heart is projected forwards against the sternum *during* the contraction of the ventricles," I could readily assent to if he had said at *the close* of ventricular contraction. In the movement of a common hammer, for instance, although the head may travel full 36 inches before it arrives at the object on which its momentum is to be exerted, still no concussion or sound will be produced until the very moment of contact, yet the idea of a blow will be communicated to the senses during every inch of its progression. I agree that the projection of the septum does "commence with the very beginning of the contraction" of the ventricles, and shall endeavour to show this by-and-by; and that the apex, after receding, continues being projected until it arrives at, and is arrested by, the sternum, I imagine Mr. S. will not object to.

All authors agree that the apex is projected forwards, but whether in empty space, in medium of air, or by the displacement of some other organ, does not appear to have suggested itself. If it be projected forwards it must, of necessity, be drawn also backwards, or the continual progression, without recession, would speedily remove it from the cavity. M. Magendie states, in corroboration of this remark, p. 420, "that the apex is distant from the side of the thorax more than an inch in the diastole." I also have proved, by experiment, that the apex of the heart does recede from the walls of the thorax.

In the experiment before alluded to with the young calf, I made a small incision into the diaphragm sufficient to admit the end of my first finger, and that air-tight. I introduced the same between the apex of the heart and the sternum, &c., and had the satisfaction of feeling the apex continually striking my finger, but receding afterwards, as I supposed, perhaps half an inch. Two other individuals also introduced the fore-finger, and experienced similar results. I afterwards screwed up a tube, air-tight, in the opening, at the end of which a graduated glass tube was cemented, and its lower extremity being placed in water the fluid ascended in the tube to the height of five inches during each inspiration of the animal, but was disappointed at not seeing the oscillation mentioned by Mr. Snow, in Sir David Barry's experiments (for which I feel considerably indebted, as it is a proof of pericardial vacuum which I have long desired to obtain), I afterwards found that the tube did not reach into the pericardium, but only between it and the diaphragm.

If, then, the apex does recede from the thoracic walls, and Mr. Snow, or any member of the profession, will prove to me that air, fluid, or solid body, can or does enter and fill up the space between the apex of the heart and the sternum, &c. during this temporary recession, I will at once relinquish my proposition; if not, doubtless, the argument remains unshaken.

Have the auricles, however, the same facility for rapid dilatation as the ventricles have for contraction? I have before proved that the distention of the auricles is produced by ventricular contraction, and it is more than probable that the motive power (if there be any difference in regard of time), will accomplish its movements before the auricles.

If the atmospheric air, by its own pressure, during the slow dilatation of the chest, does not rush through the natural orifices

and dilate the lungs sufficiently rapidly to prevent the manifestation of a partial and temporary vacuity (as exemplified in the experiment with the calf just cited), how much more readily will the ventricles of the heart, by their powerful muscular construction, and extremely rapid movements, be enabled to expel their contents before the venous blood can, by the pressure of the atmosphere and the vis a tergo (caused indirectly by their own action), enter and distend the auricular cavities.

The cases, also, which I before referred to, bear considerably upon these views, and upon which Mr. Snow has not offered any remarks. A more energetic impulse of the heart does take place in that state where rapid contractions, and the greatest extent of vacuum, may be most expected (in hypertrophy); and the contrary in dilatation of the heart, fainting, &c.

In the case also cited by Mr. Snow, where the apex is so secured by adhesions that no recession can occur, it is by no means "impossible for the circulation to continue," for in this instance, the ventricles being fixtures, the auriculo-ventricular septum is the only moving part of the organ; there is, I believe, in every case *no impulse*, and the auricles are filled as rapidly as the ventricles are able to contract, the adherent pericardium accompanying the auriculo-ventricular septum in its vibratory movement.

In this case the auriculo-ventricular septum would act the part of the piston of a pump, or syringe, exactly, drawing in fluid posteriorly, whilst it expelled it anteriorly, and *vice versa*.

The very moment the contractile movement commences in the ventricles, at that very identical instant does the atmospheric pressure and vis a tergo commence the dilatation of the auricular parietes, propelling forward the auriculo-ventricular septum from the onset. Whilst the apex recedes no impulse is effected, but the instant the ventricular contraction ceases it is projected to its destination. Thus we have the two powers commencing at the very onset of ventricular contraction, and exerting all their uninterrupted force to produce the propulsion of the apex. I contend, therefore, that it is impossible that the ear of the most acute individual can, under these circumstances, detect the exact fraction of a moment when the apex strikes the walls of the chest. If it were "during the contraction of the ventricles" it would be impossible to assign that contraction as the cause of projection of the apex, since (as before shown) impulse always occurs at the close of the action producing it. But if the impulse is caused by auricular distention, and the latter is proved to occupy more time than ventricular contraction, both commencing at the same instant, impulse will, of necessity, be no longer "synchronous with ventricular contraction," but at the close of auricular dilatation.

The ventricles propel the sanguineous fluid against the whole pressure of the atmosphere throughout the body. This they literally do, inasmuch as there is a pericardial vacuity on one hand to oppose their contraction, and on the other the pressure of the atmosphere upon the arteries into which the blood is injected; and if no displacement forwards of the apex were produced to fill this vacuity this would be the fact to the very letter. But how far the pressure of the atmosphere is, on the other hand, aiding their contraction by the distention of the auricles, is not here stated, but may be found further on in the paper, under the head of "use of the auricles."

I will, however, for the sake of precision, give the proposition in a more tangible form, and which I believe approaches very near to the reality.

If the contraction of the ventricles were sufficient to shorten the heart two inches, and the auricles dilate three-fourths as rapidly as the ventricles contract (*i. e.*, filling one inch and a half while the ventricles contract two inches), the apex will only recede from the angular space before alluded to half an inch, and the consequence will be that, although a perfect vacuum be made in front of the apex, yet the degree of force required by the ventricles to produce this vacuum, will only be equal to one-fourth of what it would be were no blood allowed to fill the auricles; and the chest, for the extent of the pericardial surface (37 inches), will only have to support a pressure of about four pounds on each square inch, or 148 pounds upon the whole surface of the thorax, &c.

How Mr. Snow can state "that if the thoracic viscera were defended from atmospheric pressure, then the phenomena I exhibit could not take place, whatever were the structure of the pericardium, since it is by this pressure these phenomena are produced" (if he at all comprehends the nature, mechanism, and intentions of the glass pericardium, *fig.* 2), I am at a loss to imagine. I would ask, Is not the influence of this pressure admitted by the two venæ cavæ and pulmonary veins as certainly as it is by the open cock, *f*? The manner in which I described the action of the machine was, in the way which appeared to me most forcibly to illustrate the action of the heart, viz., by closing the cock, *f*, until *A* was exhausted and the vacuum produced, then allowing the air to rush in and distend the auricles, *B*.

Perhaps it would be best to half turn the cock, *f*, and exhaust *A* so rapidly that *B* would only become three-fourths dilated during the exhaustion. We should then have a vacuum of one-fourth the pericardium, from *C* to the apex, and this would be

immediately filled by the further dilatation of *B*, which would also project the apex to its destination, *C*.* The action of the heart, during the adhesion of the apex to the pericardium, and several other phenomena, may be pleasingly represented by this apparatus. I do not, as Mr. Snow appears to imagine, for one moment rest my propositions upon the firmness of the pericardium, but upon that of the thoracic walls and diaphragm, and consider I have now sufficiently proved them to be "as firm and unyielding as the glass vessel by which I have represented" them.

It is quite certain that as long as they remain stationary, with regard to the heart's action, the pericardium, which is attached firmly to their structure, will be subject to no influence, which can separate it from its connections with them, although vacuity exist within.

Lastly, if M. Magendie has placed the question of the assistance which respiration gives to the venous circulation in its true light, he has by no means proved that the auricles possess no influence upon the circulation in these vessels.

During his lecture referred to by Mr. Snow upon this subject, he says, "the force of aspiration of the right auricle is also to be taken into account; but that force does not extend its influence beyond the thorax, and, consequently, cannot be compared to that of the chest during inspiration. Barry maintained that the principal motor force of the blood, from the origin of the veins to the heart, is none other than atmospheric pressure. This is a serious error; the thing is physically impossible."

Now, according to any physiological mode of reasoning hitherto maintained, there is no cause assigned for the dilatation of the auricles by venous blood, except by the vis a tergo, or propulsion of the ventricles. Under such circumstances the common syringe would possess greater advantages.

In the common syringe we have a mechanism for propulsion, and also for exhausting; but in the animal heart, the perfect work of a Divine hand, there is only allowed to be a mechanism for the contraction and expulsion of its contents; and neither M. Magendie, nor any other physiologist (that I am aware), has ever assigned to it the property of aspiration, and at the same time demonstrated a perfectly mechanical action as producing this aspiration. That the auricles do possess a power of aspiration equivalent to fifteen pounds on every square inch, in addition to the vis a tergo, is, beyond contradiction, proved, if what I have advanced with regard to the thorax be established.

If this be the case the heart may no longer be viewed, according to M. Magendie, as alone an "agent of impulsion," extending its propulsive influence alone to the arteries, capillaries, and veins, and also to dilate the auricles, but also as an agent of considerable aspiration, effecting, by pericardial vacuity and atmospheric pressure, the onward motion in the contents of every vein throughout the animal economy.

The distance to which the influence of auricular aspiration extends, caused, as before shown, by ventricular contraction, remains still to be demonstrated, and to this subject I intend to devote my particular attention. It appears to me very evident that it does extend much further than M. Magendie has given credit for.

* The letters refer to engravings which illustrated a former communication from Mr. Goodman, to be found at p. 517, vol. i.

RHEUMATISM FROM COPAIBA.

To the Editor of THE LANCET.

SIR:—It was with much pleasure that I perused the able lecture of Dr. Caswell upon rheumatism, in a late number of your Journal. I perceive, however, that Dr. C. has omitted to allude (as almost every other lecturer has done) to gonorrhœal rheumatism, a common form of the disease, and by far the most difficult to eradicate. It is now some years since I expressed my belief (through the medium of your periodical) that this complaint generally originates from the administration of copaiba; and I take this opportunity of stating that further experience and observation have confirmed this opinion. I had, last February, under my care, a gentleman, aged 19, of a strumous habit of body, labouring under gonorrhœa, for which he was ordered, by a practitioner, a copaiba mixture, two days after taking which he was attacked by acute rheumatism in the knees and feet, which rendered him a complete cripple. He had been in this miserable state a fortnight when he applied to me. I immediately ordered him to discontinue the copaiba, and substituted the iodide of potash, and compound decoction of sarsaparilla; he was almost immediately relieved, and shortly cured. I will readily admit that copaiba is, in many cases, a most valuable medicine, but in persons of a scrofulous constitution I am convinced that it is a most pernicious excitant, and, if there be any predisposition to rheumatism, will most certainly produce it. I am glad to find that my first communication attracted the attention of Dr. Sigmond (Vide LANCET vol. 2, 1837-8, No. 24, p. 826); and that his opinion coincides with my own. The potassæ iodidum is the medicine which I have employed, and have almost uniformly found it successful.

I have the honour, to be

Your constant subscriber,

A. B. MADDOCK, M.D.

80, Judd-street, Brunswick-square.

THE LANCET.

London, Saturday, May 25, 1839.

We last week gave a rapid summary of the history of parochial registration in England and Wales, and adduced the testimony of several legal gentlemen, practically conversant with the subject, to show that although, in the words of Mr. Justice Best, "all the property in this country, or a large part of it, depends on registers," the parochial registers have been imperfectly kept, and negligently preserved by the Episcopalian Clergy. Transcripts were not made in many parishes; and when they were transmitted to the Diocesan Courts, they laid there, in "cold obstruction," unarranged, unindexed, and ready to fall to pieces. In a scientific and in a political point of view, too, the ecclesiastical registers were worthless, for they contained only a part of the births and deaths. The extent of the deficiency, though great, was unknown, but it differed in different counties, and the *cause of death* was not specified. The necessity of instituting an accurate civil registration of births, deaths, and marriage contracts, entirely independent of ecclesiastical ceremonies, had become inevitable and imperative; the high church party admitted this; and the Act for Registering Births, Deaths, and Marriages, introduced by Lord John Russell, passed both Houses of Parliament in 1836, and obtained the Royal assent. But the State Clergy, instead of bowing before the majesty of the law, and inculcating obedience to its injunctions, got up a very active resistance, and fought, with the accustomed pertinacity and subtlety of a priesthood, for their fees and the Church, which they agreed were not directly affected by the civil registration, but, they held, might be affected contingently—possibly—hypothetically; and this is, unfortunately, enough to justify in the eyes of *some* of the Clergy, an opposition to national education, to science, and to everything valuable to mankind.

Now, it is quite certain that the religious ceremony of baptism had, originally, no connection whatever with the imposition of the child's name, for in the primitive church the name was then neither given nor changed; and for fifteen hundred years after the death of Christ the *sacrament* neither of baptism, marriage, or burial, was regularly registered by the priests. On the contrary, the attempted introduction of registration, under Henry VIII., was opposed as an innovation, and made one of the pretexts for a rebellion, in 1536, when, says Carte, "a large body "of insurgents got together in Yorkshire, "to the number of 40,000, who *paraded*, "*with several priests at their head, with* "*crosses and banners;* and for the purpose "of drawing in the common people they "gave out *that they should be forced to pay* "*for christenings, marriages, and burials* "(*orders having been given for keeping the* "*registers thereof,*) &c."

At the head of the list of grievances were the two following:—

"1. The first is that no infant shall receive the blessed sacrament of Baptisme, both onlesse an trybett to be paid to the King.

"2. The second is that no man under xx lands shall eyte no brede made of wheat, ner Capon, Chekyne, Gois, ner Pigge, both onlesse to pay a trybett to the King." *

The list of grievances, and the dread of never eating an untaxed "chicken, goose, or pig," had a much better foundation under Henry VIII., than had the placards composed by several of the Clergy, and suspended in the churches and churchyards, when the Registration Act came into operation. The people were told that the "registration was only for Dissenters;" that it "was perfectly optional;" that the "baptismal register was good legal evidence" (by implication of birth), and that baptisms "were performed as usual." The following is an extract from one of the clerical placards:—"*risk-*"*ing the* everlasting punishment *of their* "*children's souls*, by suffering them to grow "up without having received the Christian

* Speed, "History of Great Britain."

"baptism."—(*St. Matthew's, Bethnal-green, —Signed, Rev. Joshua King and three others.*) The Reverend JOSHUA KING was not the only rector who, upon that emergency, proclaimed the parish register to be the muster-roll of Heaven; and recklessly consigned the innocent children, whose parents had not paid the Church eighteen-pence, to everlasting flames! The promulgation of the Registration Act was the eve of a theological revolution; and it is not impossible, had not some accident intervened, that the zeal of the reverend rector and his brethren would have carried them further than the Catholic Clergy ever went,—that, at the risk of a little impropriety, they would have proposed to baptise and save the embryo soul *in utero*.*

Every friend of religion must view with pain the opposition of any of the Clergy to national education, and to a measure like the Registration Act, calculated to promote the public good in so many ways,—to confer upon all classes of society the advantages of civil registration, and to promote the public health by pointing out the causes of sickness and death. Such conduct, if they could understand its results, would furnish a parallel to that of their brethren in Upper Peru, where small-pox has latterly carried off 30,000 Indians, in a population of 240,000, and the Clergy, according to Mr. PENTLAND, will not encourage vaccination, *because a considerable part of their income is derived from burial fees.* †

The Act for Registering Births, Deaths, and Marriages in England (6 and 7 WM. IV.) repealed the former Acts, and established a central office in London, the office to be called "The General Register Office," and to be directed by a Registrar-General, who is to send, once in every year, an abstract of the births, deaths, and marriages registered during the foregoing year, to one of the principal Secretaries of State,—the general abstract to be laid before Parliament within one month after the receipt thereof, or after the meeting of Parliament,—the Guardians to divide their respective Unions into Registrar's districts, subject to the approval of the Registrar-General, and to appoint Registrars with such qualifications as the Registrar-General may, by any general rule, declare to be necessary,—the clerk to the Guardians to be Superintendent Registrar, should he have such qualifications as the Registrar-General, by any general rule, may declare to be necessary. In the event of his refusal to accept the office, or of incapacity, the Guardians to appoint a person to the office. Every Registrar and Superintendent-Registrar to hold his office during the pleasure of the Registrar-General. The Guardians to provide register offices, of which the Superintendents are to have the care and custody. The Registrars to keep their books in strong iron boxes, each provided with a lock and two keys, one to be kept by the Registrar, and one by the Superintendent. The Registrar might appoint a deputy; the Registrar and the deputy to reside within their districts, and to have their names, with the addition "Registrar," or "Deputy-Registrar," for the district, placed in some conspicuous place on or near the door of their dwelling-houses. The Registrar-General to provide register-books. The parents or occupiers of houses in which births or deaths happen, to give notice within six weeks after the birth, five days after the death, to the Registrar; the overseer to give the notice in the case of foundlings; the Coroners, in the case of dead bodies being found exposed. The 25th section enacts, "that some person present at the "death, *or in attendance during the last illness of every person dying in England*; or "in case of the death, illness, inability, "or default of all such persons, the occupier of the house;" or, in the case of his death, some inmate of the house in which

* Nemo in utero matris clausus baptizari debet, sed si infans caput emiserit, et periculum mortis immineat, baptizetur in capite, nec postea si vivus evaserit erit iterum baptizandus. At si aliud membrum emiserit, quod vitalem indicet motum, in illo, si periculum pendeat, baptizetur. — *Roman Ritual.*

† Geographical Society.—A communication from Mr. Pentland, read March, 1839.

the death has happened, shall, within eight days after the day of the death, give information, *upon being so requested to do*, to the Registrar, according to the best of his or her knowledge and belief, of the several particulars required by the Act to be known and registered. One of the parents, or the occupier of the house, to give the required information respecting the birth. The Coroner, in case of inquests, to inform the Registrar of the finding of the jury, and the Registrar to make the entry accordingly. The 28th section enacts, "That every person by whom the information contained "in any register of birth or death under "this Act shall have been given, shall sign "his name, description, and place of abode "in the register." Any persons bound to give information by the Act, and to sign the register-book as informants, render themselves, by refusal, liable to be indicted for a misdemeanour; and persons so refusing have already been convicted and fined. The Registrar is bound, on registering the death, to give a certificate, which is delivered to the officiating clergyman, who, when this certificate is not produced, has to give notice thereof to the Registrar within seven days, or to forfeit a sum not exceeding 10*l*. This is a very salutary clause, and is well calculated, if strictly enforced, to insure a complete registration of deaths. The Coroner, upon holding an inquest, may order the body to be buried, by certificate.

Certified copies of the registers are to be forwarded, quarterly, to the General Register Office, the copies to be verified by the Superintendent; the registers to be kept at the Superintendent's office, where indexes are prepared and searches allowed. The fee for every general search, 5*s*.; for every particular search, 1*s*.; and for every certified copy of any entry, 2*s*. 6*d*. Indexes are also made at the central office, where the fees for "a particular search" and a certified copy are the same, but the fee for a general search is 20*s*. The Registrar is paid 2*s*. 6*d*. by the Guardians of the poor for the entry of the first twenty births or deaths in every year, and 1*s*. for every subsequent entry of births or deaths in the year. No fee is paid to the Registrar by the informant, so that the poor enjoy, under the Act, all the advantages of a gratuitous civil registration.

Persons who wilfully make any false statement touching any of the particulars required to be known and registered, are subject to the same pains and penalties as if they had been guilty of perjury. The Registrar is liable to a fine of 50*l*. if he omit an entry, or lose or injure the register-book; and is guilty of felony if he wilfully destroy or injure the register, make a false entry, or give a false certificate.

The Marriage Act is of less importance in medico-statistical respects. An Act of 1 Victoria, c. 22, was passed to explain and amend the Marriage and Registration Acts; it contains several provisions to facilitate the administration and working of the original measure. Thus, every person who was required by the Act to make certified copies of the registers, is declared liable to a fine not exceeding 10*l*. for neglecting to do so one calendar month after notice. The following particulars are entered in the Register of Births:—The name of the district, union, and county; when born; name, if any; sex; name and surname of father; name and maiden surname of mother; rank or profession of father; signature, description, and residence of informant; when registered; signature of the Registrar; baptismal name, if added after registration of birth. The Register of Deaths contains the name; the sex; the time of death; the place of death; age; rank or profession; cause of death; signature, description, and residence of informant; when registered; the signature of the Registrar.

It will be evident from this hasty abstract of the Registration Acts, that the system of Civil Registration is in every respect an immense improvement upon the Ecclesiastical Registry. Church ceremonies are no longer registered; and the birth, marriage contract, and death of every Englishman are

recorded without any reference to the numberless differences of theological opinions which necessarily prevail among a speculative Protestant community. The cause of death is registered. Adequate means have been adopted to preserve the registers, and to render them easily accessible by means of proper indexes. A summary of the registered facts, which will accurately represent the state of public health, is to be laid before Parliament, and published every year. There remain, however, two or three defects in the measure, which we shall reserve for a future article.

In the present Session of Parliament, Lord JOHN RUSSELL introduced a Bill for safely keeping and authenticating certain Registers of Births or Baptisms, Deaths or Burials, and Marriages. The registers which principally belonged to Dissenters were consigned, by the Act, to the custody of the Registrar-General. Why were the Dissenters favoured here more than the Members of the Established Church? Why were the transcripts of the parochial registers allowed to lie in confusion and fall to decay in the hands of the Diocesan Registrars? If the parish registers possess any value, if the observation of Mr. Baron GARROW, that "there is nothing of more importance than "the endeavour to deposit, *in some secure* "*place*, the registers of births, baptisms, and "funerals," have any weight, the transcripts of the parish registers for the last hundred years should be collected, and arranged at the General Register Office; the parishes that have made no transcripts should be compelled to make them now; and the whole series of facts should be made of easy access by means of an index.

MEDICAL SOCIETY OF LONDON.

Monday, May 14th, 1839.

DR. LEONARD STEWART, President.

VACCINATION IN HOOPING-COUGH.—EMPLOYMENT OF ALUM, NARCOTICS, ANTISPASMODICS, DEPLETION, AND COUNTER-IRRITANTS.—COMPLICATIONS WITH HOOPING-COUGH.

MR. LINACRE stated that he had employed vaccination as a means of relief in two cases of hooping-cough. The disease had continued for fourteen days before he inserted the vaccine lymph. As the vesicle proceeded to maturity the severity of the paroxysms of pertussis became remarkably mitigated, though in their frequency they were undiminished. The children were well in a month from the performance of the vaccination.

Mr. CLIFTON saw nothing extraordinary in hooping-cough running its entire course in six weeks. He had generally, indeed, found this to be the average duration of the disease, which was three weeks in reaching its acme of violence, and the same time in declining. When the little patients were kept in a regulated temperature, and the general health was attended to, he had never known pertussis of more than six weeks duration. When subjected to the above treatment, which could only, however, be carried perfectly into effect in the better classes of society, hooping-cough was but a mild disease; indeed, he had not, during twenty-five years, lost a single patient in whom these regulations had been put in force. Regarding vaccination, and other supposed specifics, in this disease, he considered that they owed their reputation rather to the natural decline of the affection, than to any virtue of their own. He should, however, be fearful of trusting to vaccination as a preventive of small-pox, when it was performed during a disease like hooping-cough, which, he considered, would materially affect its influence. He should, therefore, in cases where vaccination was employed in the treatment of hooping-cough, repeat the process after the pertussis was quite cured. Everybody knew that hooping-cough in the summer was never a severe disease, and by a regulation of temperature, it was quite as harmless in the winter.

Mr. LEESE had treated many cases of hooping-cough by vaccination. He inserted the lymph at about the fourteenth day of the disease, the latter stages of which were by this means, much mitigated. He did not consider that vaccination by running its course during the presence of hooping-cough, would lose any of its prophylactic power over small-pox, provided the symptomatic fever was sufficiently severe, and the vesicle run its proper course.

Dr. BENNETT admitted the great advantage of a regulated temperature as a means of treating hooping-cough; but he was surprised that Mr. Clifton had never seen a case in which the disease had gone beyond the sixth week when thus treated. He had seen many cases in which, after the sixth week, the cough became of a chronic character, and change of air was the best possible remedy. An equable temperature, though so valuable an auxiliary in the treatment of pertussis, could not be carried into effect among the poorer classes of patients.

What, then, in the absence of this regulation was the best treatment to pursue? Hooping-cough, when fatal, was generally so in the latter stage, from the brain becoming affected. There were two classes of cases in which this occurred; in one general bronchitis supervened upon the hooping-cough; the paroxysms accordingly became more severe, and the cerebral symptoms were accounted for. In other cases there was not sufficient bronchitis to explain the head affection. He had seen several such cases in young children under twelvemonths of age, and the chief indication in whom was to guard against the cerebral mischief, by leeching behind the ears, the more vigourous application of counter-irritants down the spine, and occasionally a blister. Some cases, however actively treated, would nevertheless end fatally. He had often thought, though he had never been bold enough to put the plan into practice, that we should be justified, in spite of the cerebral symptoms, in the employment of antispasmodics and even of opiates to relieve the paroxysms of the disease; as the relief thus afforded would tend greatly to diminish the danger attending the head affection.

Dr. THEOPHILUS THOMPSON admitted the value of an equable temperature in the treatment of hooping-cough. He thought in many cases where the disease seemed protracted, that the cough was the mere result of habit, and that a little tonic or antispasmodic medicine would be as beneficial as change of air. When patients were kept in a regulated temperature pertussis was seldom fatal. It might, however, be complicated with inflammation of the bronchi or the substance of the lungs; the success of the treatment would then depend mainly upon prompt and vigorous antiphlogistic measures. The complication of emphysema with hooping-cough was not, however, unfrequent; and when the emphysema existed to a great extent the case was hopeless. In cases of this kind the practitioner found the respiration much oppressed, and on putting his ear to the chest would detect a crepitating ronchus something similar to that which was present in pneumonia, and liable, on a cursory examination, to be mistaken for it. A more careful attention to it would, however, detect the ronchus to be of a dryer kind than that indicative of pneumonia, and percussion instead of being dull, would, in fact, be clearer than usual; the pulse would also be indicative of debility. In such cases slight stimulants and tonics were the best remedies. If the case were slight a cure would probably be effected; if, however, it were severe, then the pressure of the enlarged air-cells upon the other parts of the lungs would induce suffocation, or fatal cerebral disease. It was of great importance to watch very carefully such children as were disposed to emphysema; they were generally healthy in appearance to the general observer, but the medical man would know that appearance to be a fallacious one. These patients were generally of a phlegmatic temperament. Regarding an equable temperature in hooping-cough, though valuable, it was not of itself a sufficient means of treatment; we should, in addition, employ every remedy in our power to get rid of the cough. To effect this, he thought antispasmodics had more influence than was generally supposed, and that prussic acid, when pure and good, was one of the best antispasmodics; it had also the advantage over other remedies of this class, in being admissible in the earlier stages of the disease, and during the prevalence of bronchitis or pneumonia. In the latter stages of the disease, when the secretion was free, and the inflammation subdued, anodynes, counter-irritants, and the artificial musk, were valuable remedies. He had lately employed a new remedy in this disease, after the second or third week of its existence, and though at present his experience had been limited, he had, in all cases in which he had employed it, found it had a most marked effect in checking the paroxysms. This remedy was alum, in doses of two or three grains, to a child of three years of age, two or three times in the course of the day. He had never increased the dose beyond five grains to children of eight years of age. He generally combined the alum with the extract of hemlock, but this was not essential to the production of its effects.

Mr. DENDY allowed that regulation of temperature was of great importance to patients with hooping-cough; but even, with the greatest attention to this important point, he had lost children from the occurrence of cerebral disease. In eighteen out of twenty fatal cases of pertussis he believed that the death resulted from congestion of the brain. What was the essence of hooping-cough? He believed that it mainly consisted in the very peculiar glairly secretion which was present in the disease, and that by getting rid of this secretion, or by altering its character the paroxysm was cut short, and the child relieved; this secretion was often so viscid at the upper part of the respiratory tube, as to produce suffocation. To its beneficial effects upon this secretion, one of the most popular of all remedies in hooping-cough, owed its fame,—the carbonate of soda, with alittle cochineal to colour it. Alkalies were of great effect in altering the character of the secretion in question.

Mr. HEADLAND believed that most of the mortality from hooping-cough was to be attributed to doing too much rather than too little. To warm air, mild purgation, and, in the latter stages, carbonate of potash and counter-irritants, no addition, generally speaking, could be usefully made.

BRITISH MEDICAL ASSOCIATION.

MEETING OF COUNCIL.

Tuesday, May 14th, 1839.

Dr. WEBSTER, President, in the Chair.

THE minutes of the last meeting having been read and confirmed,

Robert Holden, Esq., R.N., and
John Turner, Esq., High Wycombe, Bucks,

were admitted members of the Association.

The President announced an annual subscription of £1 1s. to the Benevolent Fund, from Messrs. Whittaker & Hodge, Borough.

A letter was read from E. Wilkinson, Esq., surgeon, dated Aspatria, Cumberland, on the subject of illegal practitioners, two of whom infested his neighbourhood; and on the disgraceful system of tender for poor-law medical offices.

The President read extracts from two letters which he had received from Dr. Maunsell of Dublin.

A letter was read from Mr. Bedingfield, of Stowmarket, together with a petition to the Houses of Parliament, as drawn up by him some years back.

The President laid on the table a copy of the regulations of the University of London, on the subject of degrees in medicine, forwarded to him by the University.

On the representation of the Treasurer it was resolved that a further sum of £40 be invested in the Three Per Cent. Consols in trust for the Benevolent Fund.

The meeting then adjourned.

THE TYPHOID SYMPTOMS IN MR. CRIPPS'S CASE OF HYDROPHOBIA.

To the Editor of THE LANCET.

SIR:—Appended to my case of hydrophobia (in THE LANCET of the 11th) there is, I perceive, in a foot-note, an expression of regret that I had not furnished you with a detail of the typhoid symptoms which I stated to have supervened upon the subsidence of the true hydrophobic phenomena. As, however, the notes which I have preserved of this portion of the case will supply this desideratum, I have much pleasure in furnishing you with them; my only motive for withholding it from my previous communication being the fear lest I should trespass too largely on your pages.

I terminated the details of my report on the evening of Monday, March 18, at which time our patient appeared to be very comfortable, conversing cheerfully, and being able to swallow fluids with the greatest facility.

Tuesday, 6, A.M. Sleeping soundly; woke at seven, and told me she had "had a comfortable night, and perspired beautifully;" she appeared, however, to be but little refreshed by her sleep, and seemed much more languid than on the previous evening; the skin felt hot; pulse 120, and weak; tongue dry, with a brownish streak in the centre; bowels not opened since yesterday at noon.

Calomel, 5 grains;
Compound ipecacuanha powder, 5 grains; immediately.

12, A.M. Bowels relieved; had a slight rigor, which lasted about twenty minutes; urine scanty and high-coloured; thirst considerable; drinks large quantities of toast-water; deglutition is now perfectly natural, and the fluid is carried to the mouth without the slightest tremor or agitation; head feels hot and painful; cloths dipped in cold vinegar and water to be kept constantly applied. Saline effervescing mixture every three hours.

6, P.M. Head better; pulse 124; great prostration of strength; during the night she was very restless, the few and short intervals of sleep being much disturbed by unpleasant dreams.

Wednesday, 6, A.M. Debility excessive; takes no notice of any one entering the room; lips much parched; the whole surface of the tongue quite dry, and very brown in the centre; sordes collecting in the teeth; pulse 130, and extremely feeble; refuses medicine, but takes a little weak brandy-and-water occasionally.

2, P.M. The pain in the head having returned, the cold applications to be renewed; there is transient delirium, owing to the excessive debility; is unable to rise to the calls of nature, but is conscious of responding to them.

8, P.M. The mouth is so parched as to render articulation almost impracticable; the teeth are incrusted with sordes; slight subsultus tendinum.

11, P.M. Up to this period the respiratory organs had seemed unaffected; the breathing is oppressed and rather hurried, though not painful. On applying the ear a râle is discoverable in the upper part of the right lung, elsewhere respiration is natural; refuses everything but weak wine and water; pulse 130.

Thursday morning. Had been delirious during the night; several evacuations passed involuntarily; subsultus increased; a few petechiæ have made their appearance; requires much rousing before she answers questions, and recognises her attendants with difficulty; extremities cold; pulse 134, but scarcely perceptible, occasionally intermittent; mucous rattle has extended over the whole of right side and greater part of left. Mustard cataplasms to the calves.

Evening. Cataplasms produced no effect;

she is perfectly unconscious; pulse fluttering; she is evidently sinking. During the night she died.

From a review of these symptoms there can, I apprehend, be but little doubt as to the propriety of applying the term "typhoid" to them; but the remarkable feature in this portion of the case is the extraordinary rapidity with which it ran through its consecutive stages.

I extremely regret that insurmountable obstacles precluded the possibility of a post-mortem examination. I am, Sir, your obedient servant,

FREDERICK CRIPPS.

113, Dale-street, Liverpool,
May 20, 1839.

P.S.—In the transfer of my last communication to your pages a few typographical errors have crept in, which, probably, you will place amongst the "corrigenda:"—P. 258, line 5, *for* "two years and a half," *read* two years and a quarter; line 42, *for* "kicked," *read* shrieked; at commencement of third paragraph, *after* attributed to *insert* no.

BLENHEIM-STREET FREE DISPENSARY AND INFIRMARY.

OVARIAN DROPSY. — PUNCTURATION. — RECOVERY.

MRS. PALMER, ætat. 29, was admitted under the care of Dr. Robert D. Thomson, on 15th May, 1838. The history which she gave of the occurrence of the symptoms was briefly as follows:—She first menstruated in August of the year in which she had completed her eleventh year in the preceding May, and from that period to the present her catamenia have returned at regular periods, always in great profusion, generally remaining seven or eight days, accompanied with dragging-down pains in the loins and thighs. At the age of eighteen she married, but neither by her first nor by the second husband, with whom she is now living, has she experienced any symptoms of conception. About two years ago she began to complain of pain in the right iliac region, which was much increased by pressure. The abdomen on the right side soon afterwards commenced to swell, and became tense. The tumefaction gradually extended over the whole abdomen, and occasioned great uneasiness by the pressure on the chest, and the weight of the tumour. On examination the whole abdomen was found to be tense and much swollen, so as to render it even irksome for her to have her clothes tied; gentle pressure on the right iliac region elicited symptoms of tenderness, which was increased to pain when the pressure exerted was more forcible. She states that the tumefaction sometimes subsides in a slight degree, so as to render her life less miserable, but, in general, the weight of the tumour and consequent languor induced, prevented her from even walking out of doors. She has been more or less affected for some years with a white slimy discharge from the vagina, which is most abundant after her catamenia have subsided. When examined by the finger the os uteri was found to be enlarged and somewhat puffed, but no irregularity was detected on its surface. On viewing it with the end of the *speculum* it was found covered with superficially ulcerated points, which were connected by erythematous mucous membrane; a copious discharge proceeded from these points; litmus paper when dipped in it became immediately red, but it was not altered by the mucus on the sides of the vagina. Her countenance exhibits considerable anxiety; her pulse small and somewhat irregular; she is subject to headach; her appetite is much improved; her tongue is slightly furred; and her feet and ankles are pitted on pressure. No pain can be detected by pressure on any other part of the abdomen except on the right side. Fluctuation of fluid can be distinctly felt all over the lower part of the abdomen, which, however, is swollen up to the xyphoid cartilage.

In making some clinical observations on this case Dr. Thomson pointed out the grounds of analogy between hydrocele and ovarian dropsy, both as regards the structure and functions of the organs affected, and concluded by suggesting that if his reasoning were correct, *puncturation*, the method of operation for hydrocele introduced by Mr. Lewis, and so successfully practised by Mr. King, late surgeon to the infirmary, would, in all probability, palliate, if not entirely remove, the symptoms under which the patient was labouring.

Accordingly, on the following day, the second day after admission, the patient having expressed the utmost willingness to submit to any operation which might be proposed for the alleviation of her complaint, Dr. Thomson made seven perforations with a common puncturation needle under the *umbilicus*. The needle was 2¼ in length, and was introduced to its full length by giving it a rotatory motion by means of the thumb and index-finger. On withdrawing the needle a single drop of clear fluid protruded from each aperture, which restored the blue colour of litmus paper, reddened by an acid, and possessed the other chemical characters of serum. Several of the punctures produced considerable pain, and excited the feeling of the back-bone having been touched, as the patient expressed herself, and some degree of faintness was induced; but as the whole manipulation did not occupy above a minute, no

disagreeable effect whatever was produced upon the patient.

On the sixth day after admission, or fifth after the operation, the girth of the abdomen (which before the puncturation was 34 inches) had subsided to 31 inches. She was now directed to employ friction over the abdomen with flannel and spirits of turpentine; to take ten minims of the *tincture of foxglove*, twice a day, and an ounce of *bitartrate of potash*, dissolved in water, and sweetened with sugar, as a drink. She now expresses herself as comparatively comfortable and well. To the os uteri caustic was applied by means of the speculum, and a solution of carbonate of soda ordered to be injected into the vagina four times a day.

On the 8th day after admission the abdomen measured 30½ inches in circumference. There is now no pain on pressure, and the tenseness has greatly subsided. From this period she was ordered tonics, the cold hip-bath, and nourishing diet, and by the beginning of the subsequent month her complaints had entirely disappeared, nor did any former symptom recur until the following December, when he applied at the infirmary, complaining of pain in the situation of the left ovary, with some degree of tenseness. By the use of bleeding and diuretics these speedily disappeared, and she is now (17th March, 1839) quite well. Dr. Thomson stated that he had frequently punctured in hepatic ascites, always with great relief to the patients.

INQUESTS IN MIDDLESEX.

POST-MORTEM APPEARANCES OF MISS HARRIET MARTINDALE SMITH, AGED 53, APRIL 23, 1839; THREE DAYS AFTER DEATH.

External appearances.—Some marks of lividity on the loins, sides of thorax, inner and posterior surfaces of arms; face and anterior surfaces unchanged; integuments of the neck in their natural state; no marks of any external violence having been used.

Brain.—No adhesions between dura mater and cranium; a considerable quantity of clear fluid flowed from between the two layers of arachnoid membrane; the veins of surface of brain much injected with blood; the veins of pia mater sinking between the convolutions distended with blood. On incising the substance of the brain it presented numerous bloody points; the lateral ventricles contained two or three ounces of clear fluid; no effusion of blood in any part of substance of brain, which was of natural consistence; no effusion in substance of cerebellum, a portion of which was softened.

Thorax.—No fluid was found in the pleuræ; these membranes of their natural colour, and of healthy appearance; slight adhesions of left pulmonary and costal pleuræ; on right side adhesions very extensive of pleuræ to walls of thorax, and to the diaphragm; no sign of recent inflammation in either cavity; the lungs of a somewhat darker appearance than usual, but crepitant throughout, less so, however, posteriorly and inferiorly, where they were gorged with dark blood, which flowed out on incision. Pericardium, extending a little beyond right border of sternum, contained about three drachms of serous fluid.

Heart, of ordinary size, empty and flaccid, with attenuation of walls of both ventricles, particularly the right, which was covered with a large portion of fat; muscular substance flaccid generally; lining membrane of ventricles somewhat injected; that of the aorta and pulmonary artery of a vivid red colour; an incipient point of ossification was detected just above the semilunar valves of the aorta; no fluid in any of the cavities; weight of heart, including the commencement of the large vessels, 8¾ ounces. The œsophagus was found injected, particularly at the upper portion, where there was a small quantity of dark-brown-coloured fluid, similar to what was afterwards found in the stomach. The larynx and trachea very much injected throughout the whole extent, as also the bronchi and their ramifications, which contained a sanguinolent fluid.

Abdomen.—No fluid in the peritoneum, which membrane was of a healthy and natural appearance; the liver filled both hypochondria, and extended upwards to lower border of the fourth rib, its left lobe nearly covering the stomach, which was slightly distended; gall-bladder filled with bile; on being incised the liver exhibited a paler hue than natural; its texture granular. Slight vascularity of small intestines externally; in many parts a dark mottled appearance; a portion of colon greatly distended, passing across the hypogastric region, of a dark-brownish-green colour; no gangrenous odour; this portion was, at first, taken for the transverse arch, but, on tracing the intestines downwards, it was found to be the descending colon, the transverse portion occupying the usual situation of the descending; the stomach slightly injected externally over its greater curvature. A ligature was applied above the cardiac orifice and below the pyloric, and the stomach removed. Commencement of duodenum of increased vascularity at mesenteric border, of a brownish colour, as were also the jejunum and ileum; the whole lining membrane of the cœcum injected, and of a purple colour; several spots of ecchymosed blood were observed in the colon; the large intestines contained a semifluid fæcal matter, of dark-brown colour, which seemed, in a great measure, to account for the dark appearances externally.

Contents of the Stomach, and internal appearances of that viscus.—Ten drachms of a

thick, dark-brown-coloured fluid were discovered, homogeneous; no recent food; this fluid was not easily separated from the mucous membrane, which was firm and not easily detached; it exhaled a smell of new beer rather strongly; no appearances of any inflammation, ulceration, &c.; no gritty sensation conveyed to the fingers on rubbing the inner surface, and nothing but the viscid fluid adhered; the contents did not alter litmus or turmeric paper.

Analysis of Stomach and its Contents.—The contents of the stomach were diluted with distilled water and filtered; the stomach itself was also boiled in distilled water, and filtered; the usual tests were applied to both the filtered fluids, for arsenic, corrosive sublimate, tartar emetic, sulphate of copper, lead, prussic acid, oxalic acid, and opium, without showing evidence of the presence of any of these deleterious substances.

Remarks.—The subject of the above investigation was a lady who died under rather mysterious circumstances. The only person who had been in communication with her for the last three weeks of her life was the nurse, who was in constant attendance during that time, and who, from the serious illness with which she has since been visited, has been unable to give her evidence as to the existence of any previous illness, or as to the immediate cause of death. It is known that the lady was much addicted to drinking brandy. The morbid appearances above detailed seem all to correspond with the results which would be looked for in the bodies of those who yield to such propensities. There being no further evidence to produce the jury returned a verdict of "Natural Death."

HENRY PRATT, Surgeon.

Dorcas-buildings, Hammersmith,
May 7th, 1839.

ELECTION OF A MEDICAL CORONER AT BIRMINGHAM,

BY A TEN-FOLD MAJORITY!

AT a meeting of the Town Council of Birmingham, held on Thursday, the 16th of May, the election of a Coroner, to which allusion was made in THE LANCET of May 4th, took place.

The proceedings commenced by an announcement that Mr. Underhill, an attorney, had withdrawn from the contest.

Alderman VAN WART moved that John Birt Davies, Esq., M.D., of Newhall-street, be appointed Coroner for this borough. According to a suggestion which he had previously offered, he should not make any observations.

Mr. HARDMAN seconded the nomination.

Alderman LAWRENCE moved that John Welchman Whateley, Esq., attorney-at-law, be appointed Coroner.

Mr. ASPINALL seconded the nomination.

Mr. GEACH moved and Mr. MASON seconded the nomination of Mr. Frederick Ryland, surgeon.

A letter from Mr. Wills stated, that in consequence of the number of pledges which had been given to other candidates—he himself never having canvassed—he should not further contest the appointment.

Mr. RODWAY wished them to bear in mind the services of Dr. Davies. Those who had known him the longest respected him the most. He had always found him a friend to the poor, and in common justice to him, to themselves, and to those who sent the Council there, they were bound to elect Dr. Davies.

Alderman LAWRENCE had not intended to say one word in support of Mr. Whateley, nor did he think that any long speech of his could have any effect upon the Council, if twenty years of faithful and impartial services in the office of Coroner would not recommend him for that situation. With regard to Dr. Davies, no one thought higher of him than he did as a physician and a humane and enlightened member of society, but they were not called upon to elect a physician but a coroner!!!

Mr. DRAKE said, if he voted from personal consideration, he should vote for Mr. Ryland, whom he highly esteemed; but if he voted for the man best qualified by past experience to fulfil the office of Coroner, he must vote for Mr. Whateley.

Alderman BETTS bore testimony to the ability, kindness, and gentlemanly conduct always shown by Mr. Whateley, in the discharge of his duties as Coroner; but Dr. Davies, in his opinion, was most admirably qualified for the office.

Mr. PAGE said that since counsel had given an opinion that Mr. Whateley was not entitled to compensation for loss of office, he would not give him a vote.

Mr. Alderman Sturge, Mr. Weston, and Mr. Jennings, briefly supported the nomination of Dr. Davies. Mr. Geach and Alderman Beale supported Mr. Frederick Ryland, and they considered him in no way inferior to Dr. D. Mr. Geach added, that he should at once have supported Mr. Whateley had he not been aware that the Council generally were in favour of a Medical Coroner.

The MAYOR then took a ballot upon the respective nominations, and declared the numbers to be,—

For Dr. Davies	40
Mr. Ryland	9
Mr. Whateley	4
Absent	11
	64

Dr. Davies was then declared duly elected.

A correspondent informs us, that Mr. JAMES RUSSELL, an apothecary, of Birmingham, suffered himself to be induced to canvass the members of the medical profession in that borough with a requisition in favour of the ATTORNEY candidate, Mr. WHATELEY, which was everywhere indignantly rejected. The writer adds, that "he trusts that the result of the election will be a lesson to a certain legal firm in Birmingham which has a pecuniary interest in all elections of officers to a certain medical institution in that town."

UNIVERSITY COLLEGE HOSPITAL.

(*Case of W. J., concluded from page 62.*)

Feb. 15. Has continued much in the same state since the last report. To-day Mr. Liston introduced a catheter into the bladder, when a quantity of matter escaped through the instrument. The patient also passed some blood by stool.

25. Bowels relaxed; œdema much less; feels better; has passed about a tablespoonful of matter with his urine.

27. The urine he passes is clear.

28. Passed rather better than half a pint of clear urine this morning. He occasionally passes a little matter with the urine that passes through the fistulous opening.

On the 3rd of March he became affected with a troublesome cough; the abdomen became tender all over on the 5th; on the 7th the legs and feet became œdematous; and on the 8th he died.

After-death Appearances.

General œdema, particularly visible in the face, abdomen, and lower extremities. The cellular tissue of the scrotum much distended with fluid.

Head, not examined.

Chest.—A large quantity of clear serous fluid in the cavity of the pleura, causing compression and consolidation of the substance of the lungs, which were, in other respects, healthy. Pericardium contained two or three ounces of serous fluid. Heart natural.

Abdomen.—Cavity of the peritoneum distended with serum; intestines remarkably pale; liver rather large and pale, otherwise healthy; left kidney large and pale, the cortical substance seemed broken up and mixed with the tubular structure; on the surface projected a cyst, which also lay imbedded in the substance of this organ. On opening the cyst it was found to contain a substance resembling the melt of a fish. The right kidney was rather larger and paler than natural. Left ureter rather dilated; right ureter natural. The bladder was thick and muscular, fibres strong. Between the fundus of the bladder anteriorly, and the front of the rectum posteriorly, was found a large collection of pus, which escaped by the rupture of the peritoneum (which was the only covering superiorly) by an accidental stroke of the knife in getting out the parts. This abscess opened by a small aperture into the rectum, about two inches above the anus. Another opening was also discovered leading to an extensive abscess in the prostate gland. There were several sinuses leading in various directions through the condensed and hypertrophied cellular tissue of the scrotum, some of which opened externally at the bottom of deep cicatrices, whilst others passed backwards and upwards, and communicated with the urethra. The opening situated in the cleft between the scrotum and left thigh, through which, previous to the operation by Mr. Liston, the urine flowed, was discovered to pass upwards and backwards, to join the membranous portion of the urethra. Another narrow fistulous opening extended from the perineum, in the situation where the incision was made during the operation, to the urethra, immediately behind the bulb. The urethra was pervious along its whole extent. The neck of the bladder, prostate gland, and rectum, were surrounded by a quantity of condensed and not very vascular tissue, of a yellowish colour, and almost cartilaginous hardness.

ST. GEORGE'S HOSPITAL,

CHOREA.

MARIA HAISILL, aged 16, a patient of Dr. Seymour's.

Nov. 8. She has had what she calls Witus's dance, for upwards of two months. Her general aspect indicates a deranged state of constitution, and it appears that the catamenial secretion has been absent for five months. The pulse is natural, and the tongue is very red. She was ordered to have a shower-bath every morning, and to have a senna draught at the same time, whilst the following medicine was to be taken twice daily,—

Steel wine; 1 drachm;
Aloe wine, 1 drachm;
Green mint-water, 10 drachms. To have ordinary diet, without vegetables.

15. No headach; bowels quite open. To leave off her medicines and to take instead

Myrrh and aloes pill, 10 grains, every other night.
Compound steel mixture, 1 ounce, twice daily.

Dec. 2. The abdomen appears full, but is soft on pressure. The bath was omitted in consequence of its being the period for the menstrual return, though nothing beyond a slight tinge of the linen is perceptible. Three grains of calomel were ordered to be taken at bedtime, and a senna draught early to-morrow morning.

4. Bowels freely opened, by which she is greatly relieved. The medicines to be continued.

9. Much better; to take half a drachm of carbonate of iron three times daily, and a senna draught every other morning.

22. Went out very much relieved.

PARALYSIS.

Mary Morgan, aged 50, admitted November, 18.

Nov. 19. She was brought in yesterday evening, having fallen down some hours previously in a fit. There is now complete paralysis of the left side of the body, and when the tongue is protruded it is to the left side. She had been bled before her admission, and when she came in had a blister behind each ear. There is some strabismus of the left eye, which she says is not natural. Ordered a draught of sulphate of magnesia every four hours, until the bowels have been freely opened several times.

20. The draughts have acted very freely; pulse 84, full and quick; she can answer questions quickly, but her memory appears to fail her. The urine and fæces are passed involuntarily. Ten leeches to be applied to the forehead, and the draughts to be repeated every six hours.

21. The leeches bled very freely, and the head is in consequence much relieved.

24. Much the same; there is no increased power over the lower limbs; bowels act freely; much hysterical sobbing. A blister to be applied to the back of the neck; five grains of *compound extract of colocynth* to be taken every night, and one ounce and a half of *infusion of valerian* to be taken three times daily.

27. The bowels act regularly, and the blister rose well. Her spirits are much depressed, and there is frequent sighing and crying. No pain in the head, or giddiness, but the limbs remain as powerless as before.

Infusion of valerian, 10 drachms;
Ammoniated tincture of valerian, one drachm. To be taken as before The pills to be omitted, and three drachms of castor oil to be taken instead, early every morning.

29. Pain in the left knee very severe; her other symptoms remain the same. Soap liniment, with opium, to be rubbed on the affected part.

Dec. 5. She has to-day some considerable pain at the back of the head, to relieve which she was ordered eight leeches behind her ears. In every other respect she remains the same.

7. The pain in the head very much relieved; in every other respect the same. The medicine to be continued.

19. Went out to-day, at her own request, not at all relieved.

HYSTERIA.

Esther Cole, aged 31, a single woman, residing in Chelsea, was admitted Dec. 27th, under the care of Dr. Chambers. The pulse is 120, small, weak, and soft; skin cool and moist; tongue slightly furred; bowels costive; urine freely secreted; catamenia pretty regular. She says that she has pain shooting from the sternum to the right side, which is increased on inspiration. She has a sour, copper-tasted fluid come up into her mouth, accompanied with flatulent eructations. She is unable to lie on the left side, in consequence of a dragging pain in the right. She has cramps in the right arm and leg, and has been ill only one month.

Blue pill, 5 grains;
Compound extract of colocynth, 5 grains, every night;
A pimento and rhubarb draught early on the following morning;
Hydrocyanic acid, 2 minims;
Carbonate of soda, 1 scruple;
Camphor mixture, 11 drachms, three times daily. Broth-diet.

29. Pain much diminished. Medicines to be continued.

Jan. 1. Complains of being very nervous; hysterical pain returned, but with less severity. Fish diet. Medicines as before.

5. Still very nervous and hysterical; bowels confined.

Chloride of mercury, 5 grains;
Compound extract of colocynth, 5 grains, at bedtime; with a *senna draught* early on the following morning.

12. Suffers much from nervous debility. Five grains of the *compound galbanum pill* to be taken every six hours, and the other medicines to be omitted.

15. Much the same. A *saline draught*, with half a drachm of *compound tincture of gentian*, to be taken three times a day; five grains of *compound extract of colocynth*, and an equal quantity of *compound galbanum pill*, to be taken every night.

22. Complains of great pain in the right side, for which she was ordered ten leeches.

29. She has had three relays of leeches to the right side, and has taken saline draughts every three hours daily since last report. To-day she complains of sickness, with vomiting of greenish matter, and pain in the left hypochondrium; the tongue is white, and the pulse rather frequent.

Chloride of mercury, 5 grains;
Extract of poppies, 5 grains, to be taken every night, at bedtime; with a *senna draught* early on the following morning. Broth diet.

Feb. 2. The senna draught not sufficiently powerful; head still painful, for which she was ordered twelve leeches, and a strong purging powder, to be taken early every morning.

Powdered jalap, 15 grains;
Bitartrate of potash, half a drachm;
Powdered ginger, 4 grains.

She persevered in this plan for upwards of a week, when, finding that her minor symptoms only were relieved, whilst the more prominent ones remained unmitigated, she, at her own request, was discharged.

WESTMINSTER HOSPITAL.

In the Board-room of the above hospital, on Tuesday, 30th April, Mr. Cheese in the chair,

Mr. Harrison, one of the Governors, moved, as a resolution,—"That an inquiry be made into the conduct of Mr. Hale Thomson, the assistant-surgeon, for tapping a hydrocele in a patient whose testis was affected with fungoid disease." Mr. Harrison had not seen the case, but he had heard a rumour which he thought would justify the inquiry. It was as follows:—"Giovanni Ruizzi, a friendless foreigner, was admitted into the hospital with a testicle that had been diseased for two years. Within an hour of his admittance Mr. Thomson, without consulting his colleagues (which he was required to do in all capital operations, by a regulation of the charity), punctured the scrotum with a trocar, and drew out twelve ounces of a turbid fluid. Whilst the fluid was flowing out Mr. Guthrie entered the ward, and was asked by Mr. Thomson to give an opinion as to the nature of the disease in the testicle. Mr. Guthrie replied that it was too late; and that he ought to place his patient in bed as soon as possible. A few days afterwards, Mr. Thomson punctured the scrotum again, and drew off another dozen ounces of the same kind of fluid; and five days afterwards the man died, as he (Mr. Harrison) believed, in consequence of the operation, for there was no other obvious cause to which his death could be ascribed, at least, that he knew of, for he had only seen the man in bed, and had made no inquiries into the matter. He had heard it stated that the man died from the operation, and he had for that reason thought proper to moot this inquiry."

Mr. Guthrie denied the truth of this statement, so far as regarded himself. Had Mr. Harrison any evidence to adduce in support of his assertions: if not, it was unjustifiable thus to attack the character of a medical man. The whole was a cock-and-a-bull story, and he should move the previous question.

Mr. D. O. Edwards seconded the motion. He had accidentally seen the patient, who expressed himself as having been greatly relieved by the removal of the fluid. The tapping had removed the painful sense of weight and tension, and no inflammation or other mischievous action had set up in the part. The patient was very much emaciated, and worn out by the long continuance of the malady in the testicle. He could not conceive why such a question should be brought before the Board, unless from a desire to render ridiculous *all* inquiries into the conduct of the medical officers, and thus create a distaste in the Governors for the office which it was their duty to perform.

Mr. Lynn thought it important that the surgeons of the institution should know whether they were to open abscesses without a consultation, for such collections required as much judgment and tact in the treatment as hydroceles. The rule required a consultation to be held in capital operations alone; could hydrocele-tapping be considered "capital?"

Mr. Green thought that the Board ought not to allow the reputation of the medical officers to be destroyed by insinuations. He should, therefore, prefer a full inquiry into the subject. In consequence of the notice published by Mr. Harrison the most painful reports had got into circulation.

Mr. R. Alcock thought that the passing to the previous question would be sufficient vindication of Mr. Thomson, by showing the Board's estimation that the charge was too paltry to merit attention. The charge was a gossiping and disjointed story.

Dr. Burne hoped that Mr. Thomson would not notice the proceeding, or furnish any explanation.

Mr. White knew nothing of the case, but, judging from Mr. Harrison's report, he should say that there was no ground of inquiry. Would Mr. Harrison withdraw his motion?

Mr. Harrison refused to do so; and the "previous question" was unanimously carried.

SALOP INFIRMARY.

The General Half-yearly Board was held on Tuesday last; the principal business was Dr. J. Johnson's long-pending motion, touching the supply of drugs to the infirmary being thrown open to the trade, and not confined, as it has hitherto been, to two druggists, resident in Shrewsbury. In moving his resolution to this effect—

The Doctor read a variety of letters in support of the resolution. He had taken the prices of Messrs. Blunt and Whitney's drugs, &c. from their quarterly bills, from Lady-day 1837 to 1838, varying from 5 to 100 per cent. They (the infirmary) were paying high retail, as compared with London prices; prices without discount. Was this making an economical use of the funds of the institution? Besides, it was well known that the London houses supply the greater part of the country druggists; and most of the wholesale London houses charge public in-

stitutions generally less than the country druggists, owing to there being less risk in payment. He would, therefore, submit as the best system, that they should send for stated samples and the prices of such quantities as might be necessary for six months' consumption. Since that statute was enacted, they had a dispenser able to compound many of the articles formerly prepared for use by the druggists; also, a house-surgeon at an increased salary. Surely, then, it was time to alter the present system, when they had officers capable, if unrestricted by the 84th rule, of assisting the Directors in making purchases at the best markets, with more than twenty medical trustees and officers of the charity to assist them. It must be obvious to all that free competition under careful superintendance was best calculated to ensure the lowest prices, and at the same time genuine articles.

E. Edwards, Esq. having seconded the motion, after some short discussion, Mr. Thomas Blunt said that he had taken the bill for drugs and chemicals for one quarter, sent in by his house to the infirmary, and recast all the items at the prices charged by the London house, and that the difference in the amount of the bill so made out, and the amount actually charged, fell short of 4*l*.

Mr. Whitney and Mr. Cartwright, the late house-surgeon, also addressed the meeting; and some personal allusions being made likely to renew the scene which took place at the last meeting, Sir B. Leighton proposed as an amendment, "That the drugs be purchased only of operative chemists (not being more than three in number), if they can supply the same."—This was seconded by the Rev. H. Burton, who stated that the head physician of one of the London hospitals had recently advised him to give the preference to a good resident practical chemist, rather than to a London wholesale druggist. This alteration meeting Dr. Johnson's approbation, the Directors having thereby the power to buy at the best markets, either in London or Shrewsbury, he withdrew his motion, and the amendment was carried unanimously.

THE ERGOT OF RYE.

To the Editor of The Lancet.

Sir:—I have from time to time witnessed with regret some communications in your independent and enlightened Journal on the action of ergot, from Mr. Wardleworth, of Rochdale, in which, if wonderful success were dependent on unhesitating assumption and unwarranted conclusions, the right of possession, without precedent, would be awarded to him; but I can advance some facts which would prove that the 1500 cases in which he has used the ergot can be only shadows which exist in his prolific imagination. Mr. Wardleworth has not been a licentiate of the Apothecaries' Hall for more than six months, and I leave you to judge whether any practitioner *could* attend this number of patients in that period, in private practice, setting aside his having administered *the ergot* in *fifteen hundred* cases. His apprenticeship was passed with Mr. Ogden, a clever obstetrician, and a respectable practitioner, and though he is an old practitioner, I dare venture, from good authority, to say that Mr. Ogden never administered the drug so often in his whole life. I am an advocate of the ergot in some cases, but would deprecate its abuse as ruinous both to the mother and child. Mr. Wardleworth's having used the ergot in bronchitis is nothing new; the ergot has been tried in Göttingen in bronchitis, gonorrhœa, gleet, and leucorrhœa, with variable effects, and the conclusions arrived at are that it is inferior to other remedies in those disorders.

I should not have been so personal * had not a sense of duty to the junior branches of the profession imperatively called for the truth for their guidance, rather than that they should follow the sweeping conclusions of Mr. Wardleworth. I am, Sir, your obedient servant,

George Simpson.

Manchester, May 10th, 1839.

ACTION OF IODINE IN SCROFULA.

Marie C——, twelve years of age, had been an inmate of the Children's Hospital Paris, since October, 1826, when she came under the care of M. Baudelocque, on the 1st of April, 1831. The upper part of the neck, from one mastoid process to the other was surrounded by a chain of hardened scrofulous tumours, without any change in the colour of the skin. The principal mass occupied the right side, beneath and behind the ear. Behind the chin, and above the os hyoides, there was a tumour of the size of a small egg, with two fistulous orifices on either side, which gave issue to pus. Each axilla was filled by a round, indolent tumour, as large as a turkey-egg. The left arm was much emaciated, and not more than one-third the size of the opposite limb. The skin covering it was rough, and the epidermis thrown off in the form of small scales. Several deep white cicatrices surrounded the elbow-joint, which was partially immoveable. A part of the first phalanx of the little finger was destroyed, and the two other phalanges were greatly tumefied. The right shoulder-joint was,

* We have taken the liberty to alter one or two of Mr. Simpson's remarks, to remove the charge of personality, and diminish controversy.—Ed. L.

also, the seat of numerous white and deep scars, the remnant of the disease.

The first symptoms of scrofula had appeared when the child was but five years of age. The finger was first affected, and next the elbow-joint. The tumours in the axillæ and neck had made their appearance since the child's entrance into the hospital, that is, five years ago. The little patient now sleeps and eats well, but she is subject to a cough and to diarrhœa. The solution of iodine, in the dose of six ounces per day, was given, the quantity being gradually increased to twelve ounces; the tumefied parts were rubbed with the ointment of the subioduret of potassium; iodurretted baths were administered thrice a week, and the left arm was rubbed daily with soap-water.

Under the influence of this treatment the child's health rapidly improved. The cough ceased, the appetite improved, and there was no longer any diarrhœa. At the end of a month, without any apparent cause, the patient was attacked by erysipelas of the face and scalp, which, however, soon yielded. From this period the tumours about the neck disappeared rapidly; the fistulous openings closed; the arm became more full; the epidermis more healthy-looking; and in the month of August the arm was nearly as large as the right one. The motion of the elbow-joint was, moreover, nearly restored. The child now appeared to enjoy perfect health, but the tumours in the armpits resisted every mode of treatment. A blister was applied over each, with the effect of increasing their volume. Compression was tried for fifteen days, but without avail.

The subject of the above case was under treatment for six months. During that time the use of the iodine was suspended thrice, and each time the patient was purged with the sulphate of soda, before the iodine was resumed. Shortly afterwards the cholera broke out amongst the inmates of the scrofulous wards, and carried off the subject of the present case. An opportunity was thus offered of determining why the axillary tumours alone resisted the influence of the iodine, and this was fully explained by the circumstance of their having been entirely composed of tubercular matter, resembling mortar.—*From M. Baudelocque's Treatise on Scrofula.*

MALFORMATION OF THE FŒTUS.

To the Editor of THE LANCET.

SIR:—At a period like the present, when the possibility of the fœtus being influenced by any mental emotion of the mother, has been so much discussed, the following account may possess a two-fold interest; first, as a most singular case of deformity; and, secondly, as showing to what a great extent that deformity may take place, without any assignable cause on the part of the parent:—

A few days since I was requested to visit a married female, in consequence of her being taken ill. On questioning her she said, for the last seven months she had, at times, imagined herself to be in the family way; but, from the absence of many of the symptoms she had experienced in her former pregnancies, she was more disposed to attribute her feelings to illness. Immediately before sending for me there had been a discharge from the vagina of a large quantity of pale fluid, slightly tinged with blood, followed by a sensation of sinking. On examination I found the neck of the uterus dilated about the size of a shilling, and distinctly felt a substance within its cavity. As there were no pains I left her for the time, and visited her again in a few hours, when she was delivered of a female child, apparently between six and seven months advanced; the extremities were well developed, fingers and even nails being fully formed; the stomach, spleen, liver, and small intestine were entirely external to the abdomens though in other respects healthy; the division of the funis was, of course, also external; the neck and chest were well formed but a large cavity presented itself above the tongue, bounded above by the nasal bones which projected at right angles with the face; the palatine processes of the palate and superior maxillary bones were completely wanting; in fact, nearly the whole of the latter was deficient, though the vomer was tolerably perfect; both the frontal, from above the supra-orbital ridges, both parietal, and a portion of the occipital bones, were absent, as well as the squamous portion of the temporal bones; the whole of the cerebrum was protruding, without even the covering of the scalp; two hydatid looking substances adhered to the posterior, and the placenta firmly to the superior, surface.

Now, although I have questioned the mother particularly, and she possesses her full share of that desire so common among women, to attribute any malformation to some external cause, she was unable to recal anything she could accuse of having produced it, except her having seen, a week or two since, a child in convulsions. Should you deem the above plain statement of facts worthy a place in your columns you will oblige your obedient servant,

CHARLES J. HODSON.

Hart-street, Bloomsbury-square.

COMPANIONS FOR "BREAD-PILLS."

To the Editor of THE LANCET.

SIR:—As he who increases the remedies for diseases is a public benefactor, if he do not conceal its advantages within his own breast, perhaps you will allow me space in

your valuable Journal to elicit information on the following subject:—A practitioner of this town attends a Friendly Society at Chute, Wilts, for a low salary. One of its members having occasion to apply for medical relief for some complaint (the nature of which I have not been able to learn), was given a box of "pills." By some chance or other, when about taking one, he thought that they felt very hard, and was prompted by curiosity to divide it into halves, when he discovered, to his astonishment, that they were PEAS! To be fully convinced of the fact, they were, after being washed and deprived of the magnesia, planted in earth, and are now actually *growing*. This statement I had from one of the stewards belonging to the Society.

Now, as I am not aware that *peas* contain any medicinal properties, and am also ignorant of any disease that is likely to be benefitted by their administration, I shall feel obliged by information, either from the prescriber, or any of your numerous readers, as to how long such a remedy has been in use for the treatment of disease, and what cases are likely to be benefitted by their application. The replies may afford the means of saving much pharmaceutic trouble, and supersede the use of pill-making machines. I am, Sir, your obedient servant, VERITAS.

Andover, May 15, 1839.

*** The writer has authenticated his communication, but we withhold for the present the name of the practitioner who is alleged to have supplied this economic medicine. *Peas* and *bread-pills* must come under the quack's head of "VEGETABLE MEDICINES."

QUACK ADVERTISEMENTS.

A CORRESPONDENT of the "Midland Counties Herald" having observed the following paragraph in a letter which recently appeared in THE LANCET, makes the subjoined statement, which we copy into our own columns with pleasure. The exception is most honourable to the provincial Editor, assailed as he must be, week after week, with the applications of the filthy and ignorant quacks, for room in his pages to delude the readers of the "Herald." We may take this opportunity of adverting to another exception with which we formerly met. Similar instances are so rare that they deserve eulogistic mention whenever they occur. It is that of the "Weekly True Sun," when edited by Mr. John Bell, who, also, went so far as to exclude *all* quack announcements from his columns, whether with or without the prefix "advertisement." The following is the notice in the "Herald:"—

"'The quack sends his advertisement to the public papers, and gets it inserted as a paragraph, according to a system disgraceful to the press, to the pursuit of which system the "Times," I believe, forms an honourable exception. * * * The fact, that the newspapers thus tend to mislead the public, ought to make every medical man doubly vigilant in warning his patients against the daily insidious attacks upon their health.'—*Lancet*, April 13, p. 113.

"The 'Times' does not form the *only* honourable exception to the insertion of quack advertisements. The 'Midland Metropolis' can also boast of a paper, the editor of which, spurning the loathsome bribe, keeps his pages uncontaminated by the moral pestilence, and his conscience clear from those throes which *must* sometimes accompany the act of becoming the pander to a set of avaricious mountebanks, on the one hand, and a vitiated public taste on the other. Had the Editor of THE LANCET, or the writer of the letter, known of this other exception, I feel convinced it would give, at least the former, too much pleasure to permit him to pass it unnoticed; he has had too much trouble in endeavouring to lessen the bad effect of disgraceful medical laws not to feel joy at seeing a fellow-labourer in the field; in which light the editor of the 'Midland Herald,' by discountenancing the shameful system of quack advertisements, must be considered.

"W. R. (M.R.C.S.)

"Sutton Coldfield, April 29, 1839."

TO CORRESPONDENTS.

A Constant Reader (Bury) has been anticipated in his letter.—The communication of *Dr. Stewart* has reached us.

A Consulting Surgeon should be very cautious. The sum originally paid for the office was £500, being about £490 more than its value. The sufferer may think himself, therefore, fully justified in asking £1000 for his vote and interest, on the present occasion, but no one except an idiot would give it.

H. The only one with which we are acquainted was in the neighbourhood of Smithfield.

W. M. A medical man cannot claim an additional fee for attendance on an adjourned inquest.

We regret that we cannot comply with the request of *Mr. Tucker*.

The remarks of *Mr. John Snow* on a recent communication from *M. H.*, on the physiology of respiration, have been received. We cannot help thinking that Mr. Snow might better employ himself in producing something, than in criticising the productions of others.

Letters have been received from *S. B.*, *Mr. Brandon*, *Mr. Ancell*, and *Mr. Curtis*.

In Mr. Thomson's lecture, page 248, col. 1, line 18, the words "were ultimately," should have been inserted after "locomotive functions."